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ABSTRACT

A committee of three parents of gifted children, three teachers interested in gifted education, three elementary principals, and the Assistant Superintendent for Instruction in the Spencerport (New York) Central School District was established to study the educational needs of the elementary grade gifted child. Sections of the committee's report provide information on the following: student needs, myths about the gifted, philosophy of the school district, definition of giftedness, identification procedures, recommendations regarding types of educational programs, program objectives, teaching suggestions, curriculum design, teacher selection, inservice education, communications within the system, support systems, administrative responsibility, program evaluation, program budget, and committee activities timeline. Among appendixes are a list of the nine programs visited, a copy of the needs assessment questionnaire, information on the Renzulli Scales, questions for identifying the gifted, characteristics of the gifted, a parent observation form, a table on stating behavioral objectives for classroom instruction, and a chart showing components of a gifted program. (SB)

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QUALITATIVELY DIFFERENT EDUCATION

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Report of the Committee on the Gifted
March 1980

SPENCERPORT CENTRAL SCHOOLS

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SPENCERPORT CENTRAL SCHOOLS

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TABLE OF CONTENTS

Foreword, Ewald B. Nyquist . . . . . *i*

Introduction 1

1. Needs Statement 2

2. Myths About the Gifted 4

The Animal School, Anonymous *8*

3. Philosophy Statement 9

4. Definition 11

5. Identification Procedures 12

Who Are the Gifted? Milton E. Larson *20*

6. Type of Program 17

Oh, Those Gifted Students, Anonymous *20*

7. Program Objectives 21

Tips for Teachers, Howard A. Ozmon, Jr. *22*

8. Curriculum Design 24

9. Teacher Selection 40

Children Learn What They Live, Dorothy Law Nolte . *41*

10. In-service Education 42

11. Communications 45

12. Support Systems 47

13. Administrative Responsibility 49

14. Evaluation 51

15. Budget 55

16. Timeline 57

Equality in a Democracy, Mary F. Berry 60

Table of Contents, continued

17. Apendices

A. Programs Visited 61

B. Needs Assessment Questionnaire 63

C. Handicapped Students and Fiscal Support for Them - 1979-80 64

D. Renzulli Scales 65

E. Questions to Identify the Gifted, by John C. Gowan 73

F. Taylor Matrix 75

G. Parent Observation Form 78

H. Number of Students Who Would be in Program at Various Cut-off Levels 83

I. Characteristics of the Gifted 84

J. Stating Behavioral Objectives for Classroom Instruction 89

K. Confratute '80 93

L. Components of a Program for the Gifted 94

18. Footnotes 95

FOREWORD

A measure of the greatness of an educational system is the extent to which it is able to provide a complete education for all of the individuals in its care. A universal system of education is ultimately tested at its margins.

The State educational system functions very well in educating the vast numbers of students in the middle, the so-called normal range of ability; but official and public enthusiasm and support are often less generous when the gifted and other exceptional students on the fringes are singled out for special or differentiated treatment. Thus, such students often do not receive true equality of opportunity for growth.

In this Bicentennial Year it is appropriate to note that Thomas Jefferson insisted that the only natural aristocracy among men is grounded on talent. In fairness, we must honor those able students whose eventual membership in that natural aristocracy can be anticipated in their early years, by according them equal opportunity for growth commensurate with their capabilities.

Equal opportunity does not mean the same length or type of education for everyone. True equality consists in treating unequal talents unequally.

We must identify gifted and talented students early and nurture their fullest development as individuals and members of the community, the State and the Nation. We can afford to do no less; their achievement and the progress of society depend upon our success in this endavor.

Ewald B. Nyquist

President of the University
and
Commissioner of Education

January 1976

INTRODUCTION

During the 1978-79 school year there was an increasing awareness that the Spencerport Central School District may not be fully meeting the educational needs of the gifted child in the elementary grades. Accordingly, a committee consisting of three parents of gifted children, three teachers interested in gifted education, three elementary principals and the Assistant Superintendent for Instruction was formed to study this topic and make appropriate recommendations to the Superintendent of Schools.

The Committee first met on September 27-28, 1979. On these two days Dr. Alan J. White, Coordinator of Programs for the Gifted in New Haven, Connecticut metropolitan area, conducted a workshop designed to provide the members of this committee with a concise summary of recent research regarding gifted education and an overview of various types of programs for the gifted. In addition to this workshop, the three teacher members of the Committee attended a two week workshop in August regarding programming and teaching techniques for the gifted. One teacher also took a three week summer course on education of the gifted at the University of Rochester. The Committee's efforts to become knowledgeable regarding this important topic continued this fall as the members read a considerable amount of literature and visited seven programs in Monroe County. A list of the programs visited appears in Appendix A. The books and articles which most influenced the Committee's thinking are listed in the footnotes.

To ascertain the current state of the faculty's thinking about the education of the gifted,every elementary teacher was asked to participate in an informal needs assessment. See Appendix B for a copy of the questionnaire.

Since the September 27-28, 1979 meeting, the Committee has met once a week to share and discuss what was learned during the preceding week and to plan for work and/or assignments to be done during the upcoming week. In addition to the school visitations mentioned above, the Committee has had one full day meeting, two half-day meetings, and one dinner meeting with a consultant. Five members of the Committee attended a one-day workshop on February 8, 1980 to gain additional information for the Committee's consideration.

The work of the Committee would have been much more difficult without the help of two key individuals. Dr. Orrin Bowman, Assistant Superintendent for Instruction of Monroe-Orleans BOCES No. 2 suggested we obtain Dr. White as a consultant, and graciously loaned us many important books and key articles from the Gifted/Talented Resource Center.

Dr. Alan J. White, Director, BRIDGE (Building and Regionally Integrated Design for Gifted Education), Area Cooperative Educational Services Center, New Haven, Connecticut was the consultant for the Committee. His vast knowledge of the field of the gifted, his love of teaching, and his willingness to share resources and critique our ideas were of inestimable value to the Committee.

We wish to express our great appreciation and thanks to both men.

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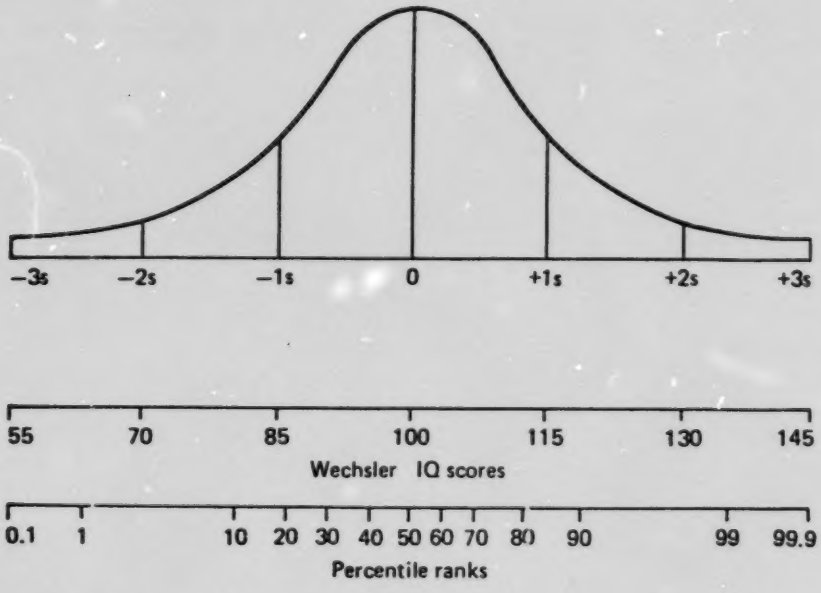
NEEDS STATEMENT

Since approximately 1963, our district has recognized the special educational needs of children whose intelligence quotients fall below 75. (See Appendix C for a brief overview of the number of children involved and the current level of financial support). Approximately the same number of our students have intelligence quotients of 130 or higher and are equally far removed from the average of 90 to 110. Like the retarded, these children have unique needs. When these needs are not met, gifted children are not likely to develop their special talents and abilities to the fullest. Not only are they deprived but also as potential leaders and problem solvers, they are lost to society. Thus, we cannot afford to ignore the gifted.

FIGURE I

Relationships between Wechsler Scores and Percentile Ranks [1]



The gifted child is one who is capable of sustained higher level thinking skills. He/she can analyze/systhesize and evaluate information when challenged to do so. Research shows that the average classroom teacher spends little time on these levels of thinking (See page 27 of this report) partly because the majority of the children cannot function well at these levels and partly because of a failure of educational institutions to prepare teachers to incorporate higher level thinking skills into their daily lesson planning.

Teachers who know how to develop these thinking skills have difficulty meeting the needs of the gifted while adequately meeting the needs of all the levels of ability found in the average classroom.

The committee realizes that it is difficult to think of the gifted children as being as far removed from the norm as retarded children. Yet research shows us:

1] a higher percentage of gifted children become high school drop-outs than any other group of children.

2] over 60% of the teen-age drug and alcohol problems involve gifted children.

3] a majority of the teen-age suicides are gifted youngsters.[2]

One of the fallacies we must guard against is the misconception that the gifted will succeed anyway. Certainly we cannot consider the drop-out, the suicide or the addict as successful. But neither can we think of the gifted student who chooses to appear as average as possible as fulfilling our educational goal to "use his abilities and talents to his maximum potential."

Because of the above issues, the Committee believes the school district now needs to devote time, attention and resources to developing programs for a group of students whose learning traits and needs are as different from the"average" student as are the learning traits and needs of the retarded student.

MYTHS ABOUT THE GIFTED

When a school district considers establishing a program where none has been before, a number of concerns, questions and objections are usually raised. The Committee has considered these issues and its findings and responses follow:

1. *There is no need for a program for the gifted because they will be successful anyway.*

> "The assumption that the gifted can survive satisfactorily without identification and special provisions is incorrect. . . As a result of his famous longitudinal studies, Terman came to regard the gifted as the most retarded group in education when mental age and chronological age are related to their actual school experiences. In view of the continuing failure to provide for any appreciable numbers of the gifted, his comment is probably still true."[3]
>
> "Studies have consistently revealed that teachers are successful in about 50 percent of their attempts to identify the gifted in their classroom."[4] Conversely, about one-half of all gifted children are not identified and do not receive the special attention of teachers and the special programming which they need. This has led to a whole series of studies on and programs for the gifted under-achiever. Indeed, "a rather consistent conclusion in research studies on under-achievement has been that under-achievement can be identified by the time a child is in third grade."[5] (emphasis added)

2. *Programs for the gifted and talented reinforce the segregation of students.*

> For many valid reasons, it is a common practice in schools to group and regroup children according to their educational needs. It is not fair to deny to gifted students the opportunity to be grouped according to their educational needs. Indeed, many of the grouping practices which do occur (for example, the highest reading group, Advanced Placement Calculus, etc.) in effect, to a degree, separate the gifted from other students.
>
> We do not advocate isolation and segregation of the gifted all of the time. Depending on how a program is organized, all of the student body can meet and work together in homeroom, special subjects, intramurals and other after school activities such as chorus and clubs. Finally, as gifted children grow older they are likely to choose children with similar talents and interests as friends.

3. *The utilization of individualized instruction abolishes the need for separate programs for the gifted.*

If this were true, then there would be no need for special education for the retarded, the learning disabled, and children with other handicapping conditions. It is equally important for gifted students to have the opportunity to interact with other gifted students on an educational level commensurate with their capabilities.

The classroom teacher who has to daily provide lessons in three to five subjects for 25 to 30 pupils of all ability levels just does not have enough time to adequately prepare lesson plans appropriate to the unique needs of the gifted. Likewise, in all probability he/she has not been trained in the education of the gifted.

4. *People are afraid that a gifted program will create an elitism; make snobs out of kids and their parents.*

If a program for the gifted is not properly organized and implemented, this could be true. However, the U.S. Commissioner of Education in his 1971 report to Congress titled Education of the Gifted and Talented stated that elitism is not a characteristic by-product of the programs for the gifted. Indeed, "the relatively few gifted students who have had the advantage of special programs have shown remarkable improvements in self-understanding and in their ability to relate to others, as well as in improved academic and creative performance. The programs have not produced arrogant, selfish snobs; on the contrary, studies show that special programs have extended a sense of reality, wholesome humility, self-respect, and respect for others." [6]

In order to prevent elitism, a good public relations program is needed with all segments of the school community so that they are aware of the need for a program, the characteristics of the program in the school, and its purposes. Considerable help needs to be given to gifted children and their parents to assist them to better understand and cope with themselves and society. Both the teachers of the gifted and all classroom teachers need to better understand the gifted child so that they can dead more effectively with him or her.

The concern for elitism among the gifted is directly parallel to concern for elitism which may develop in winning athletic teams. If not handled properly members of championship teams could develop elitism.

5. *What is good for the gifted is good for all children.*

To some extent this is true, but as compared with other groups in the total school population, the gifted are not receiving their fair share of special programming which is appropriate to their needs.

As compared with average children, gifted children need an educational program which places a major portion of its time and emphasis on the higher level thinking skills of analysis, synthesis, and evaluation. Research shows that the vast majority of classrooms, however, spend approximately 90 to 100 percent of their time on the lower level thinking skills of knowledge and comprehension.[7] Thus differentiated educational programs need to be designed for students with different educational needs.

6. *If classroom teachers were doing their job, there would be no need to offer a special program for the gifted.*

The classroom teacher has approximately 27 children whose intelligence may range from 75 to 150. Also, the span of academic achievement in the class is approximately double the grade level of the class. For example, the range of achievement in a fifth grade class is from the first through the tenth grade.[8]

The elementary classroom teacher daily prepares for and teaches three to five different academic subjects.

Thus the classroom teacher just does not have enough time to adequately plan and prepare appropriate instructional materials for the few children at either end of the continuum in his/her class. Also, the teacher probably has not been trained in the special educational characteristics and needs of the gifted.

7. *What is offered to the gifted should be commensurate with what is offered to the students in other special education programs.*

The Committee agrees, but this is not occurring in Spencerport.

8. *Gifted children should not be encouraged at an early age.*

Since research shows that gifted children who are underachievers can be identified by the third grade,[9] identification and programming for the gifted should begin as early as entrance into kindergarten so that the needs of these children can be better met. The first few years of school are the most important. Indeed, "by age 9 (grade 3) at least 50% of the general achievement pattern of age 18 (grade 12) has been developed, whereas at least 75% of the pattern has been developed by about age 13 (grade 7)."[10] Hence, it is all the more important to provide for these children at an early age.

Young gifted children thrive on a rich, varied, stimulating program. Those who lack this type of challenge often "turn off" school; they may become discipline problems or, worse yet, apathetic learners.

9. *When you remove the gifted child from the classroom you remove the best - the ones for other students to emmulate and from whom they can learn.*

Gifted students are not necessarily the "best" students in the classroom. They may be underachievers, discipline problems, unpopular with their peers, withdrawn.[11] Further, recent research studies show that once the gifted children are removed from a classroom, a second echelon of bright children emerge as class leaders.

THE ANIMAL SCHOOL

Individual Differences Make a Difference!

ONCE UPON A TIME the Animals decided that they must do something heroic to meet the problems of a "new world". So they organized a school. They adopted an activity curriculum consisting of running, climbing, swimming and flying. To make it easier to administer the curriculum it was decided that ALL of the animals should take ALL of the subjects.

The duck was excellent in swimming; in fact, he was far better than his instructor, but he could not do more than make passing grades in flying and was very poor in running. Since he was so slow in running, he had to remain after school and drop swimming in order to practice running. This was kept up until his web feet were badly worn and he was only average in swimming. BUT AVERAGE WAS ACCEPTABLE IN THE SCHOOL SO NOBODY WORRIED ABOUT THAT EXCEPT THE DUCK.

The rabbit started at the top of the class in running but had a nervous breakdown because of so much make-up in swimming. The squirrel was excellent in climbing until he developed frustration in the flying class where his teacher insisted that he start from the ground up instead of from the treetop down. He also developed "charlie horses" from overexertion and then got a C in climbing and a D in running.

The eagle was indeed a problem child and was disciplined severely. In the climbing class he beat all others to the top of the tree, but insisted on using his own way to get there. At the end of the year an abnormal eel that could swim exceedingly well, run, climb, and fly a little had the highest average and was made valedictorian.

The prairie dogs stayed out of school and fought the tax levy because the administration refused to add digging and burrowing to the curriculum. They apprenticed their child to a badger and joined with the groundhogs and gophers to start a very successful private school.

DOES THIS LITTLE FABLE HAVE A MORAL?

Anonymous

PHILOSOPHY

The official philosophy statement for the Spencerport School District identifies and ranks four dimensions of the educational program. They are:

1. Intellectual Dimension
2. Social Dimension
3. Personal Dimension
4. Productive Dimension

The intellectual dimension is defined as follows: (emphasis added)

"Intellectual Dimensions

> "Emphasis should be on the development of basic skills and the ability to identify and manipulate concepts and to clarify values. As a result of the emphasis on the intellectual development - gaining of basic knowledges in the arts, humanities and sciences, understandings, and useful skills, the student will be able to:
>
> Effectively communicate in many modes,
>
> Locate pertinent and relevant information
>
> Use all necessary skills in solving problems,
>
> *Use his abilities and talents to his maximum potential,*
>
> *Maintain and extend a desire to learn throughout life."* [13]

The program for the gifted should seek to implement the above, especially the portions typed in italics.

Children who have gifted (that is are in the top 3-5% of the nation) intellectual, creative and leadership abilities are significantly different from the "average" population as are children who have severe intellectual emotional or physical handicaps. Gifted children seldom survive educational neglect or apathy. Indeed one expert, Roger Taylor, says that if he/she is not identified and worked with, the truly gifted child probably will learn to hide his/her abilities by the third grade.

Too many of these children, if unchallenged, will neither recognize their own abilities nor develop them. Not only will they be the poorer for it, but also society will fail to benefit from their special gifts and talents. We propose a program which will bring these special children together to interact with each other and to go beyond acquiring a body of

knowledge to a higher level where they are asked to put that knowledge to work in a new and productive way.

We believe that gifted students need a qualitatively differentiated program beyond that which is normally provided in the regular classroom, a program that provides a major portion of time for interaction with other gifted students.

We believe that this design would prepare these students for real life situations.

Differentiated learning styles and special interests should be taken into account in developing a program for the gifted. The program should further develop independent study, creative thinking, critical thinking and research skills.

Since enhancing the self as a learner and a producer is a central concern, it is recommended that the emphasis of the program be on learning processes which would extend his/her ability and desire to learn throughout life. In this way, the child will be challenged to develop his/her abilities for both personal fulfillment and the benefit of society.

DEFINITION

"Gifted and talented children are those identified by professionally qualified persons who, by virtue of outstanding abilities are capable of high performance. These are children *who require differentiated programs and/or services beyond those normally provided by the regular school program* in order to realize their contributions to self and society." This definition appears in the official position papers of both the New York State Board of Regents[15] and the U. S. Office of Education.[16]

They are capable of a very high level of performance in some or all of the following areas:

(Note: these areas are not listed in priority.)

General intellectual ability
Academic aptitude and/or learning characteristics
Creative or productive thinking
Motivation

IDENTIFICATION PROCEDURES

The Committee recommends that the following identification procedure be used:

First, All classroom teachers who teach children in grade level(s) from which the students will be selected will, in a group meeting in each building, be trained in the use of the Renzulli Scales for Learning Characteristics, Motivational Characteristics and Creativity Characteristics. [17] (See Appendix D for a copy of these scales.)

As a part of this training, the teachers will be given the Gowan questions for identifying gifted students. [18] The purpose of administering these questions is to make teachers more aware of characteristics which some gifted students may possess which are not normally associated with giftedness. (See Appendix E for a copy of the questions).

Second, On a Taylor Matrix [19] (See Appendix F), the following information will be recorded for each child in the class(es) under consideration.

Normal scores for:

Group I.Q. test

Metropolitan Achievement Test Reading Score

Metropolitan Achievement Test Total Math Score

Renzulli Scale Score

Third, Compute the sub-total for the above for all students in the grade level(s) being examined and identify the top fifteen percent.

Fourth, The simi-final list developed in step three shall be circulated to classroom teachers who will be requested to make Special Nominations. If a teacher thinks a child should be in the program and his/her name does not appear on the semi-final list, then the teacher may nominate her/him by providing concrete examples, evidence, anecdotal records, etc. as to why this child should be in the program.

Fifth, Parents who wish to nominate their children for the program may do so. They must, however, send the school a letter saying why they believe their child should be placed in a program for intellectually gifted or creative children.

Sixth, A WISC-R shall be given to all students identified as a result of steps three, four and five.

Seventh, The parents of all students identified as a result of steps three, four and five shall be invited to a meeting where the nature-purposes of the program will be explained. They will be asked to complete a Parent Observation Form (which is an adaptation of the Renzulli scale. (See Appendix G).

Eighth, The Committee would also like to administer a critical thinking skills, or similar, test to the semi-finalists. At this time, however, we are not ready to recommend which test(s) should be used.

Ninth, The results of steps six, seven and eight shall be processed, and nominal scores shall be assigned (see Appendix F) and entered on the Taylor Matrix and a total score shall be determined.

Tenth, A number of students who have the highest total scores equal to three percent of the total grade level(s) enrollment shall be identified. (See the section on Type of Program for a discussion regarding the three percent criteria.)

Eleventh, The parents of the finalists (step ten) shall be contacted and asked if they wish to have their children placed in the program. If they do not, representatives of the Committee on the Gifted will then meet with these parents to discuss the situation. If the decision remains negative, then another child will be selected and his/her parents contacted.

A number of additional points need to be made regarding the above process. They are:

One: The Committee strongly recommends that a Screening and Selection Committee composed of two elementary teachers, one elementary principal, and the Assistant Superintendent for Instruction shall oversee the entire process and make all placement decisions.

Two: In addition to the students finally selected, the Committee shall develop a list of alternates that would replace those children who move out of town, whose parents remove their child from the program, etc.

Three: After the final cut-off scores for placement on the Semi-Finalist or Finalist lists are known, they will be printed and distributed and kept on file.

Four: Since children change, they can be reconsidered for entrance into the program in subsequent years. This may occur by having either their parents or their teachers nominate them. New data shall be gathered on these children. If they meet the criteria for their grade level (three above) and their parents and the Screening and Selection Committee approve, they shall be placed in the program.

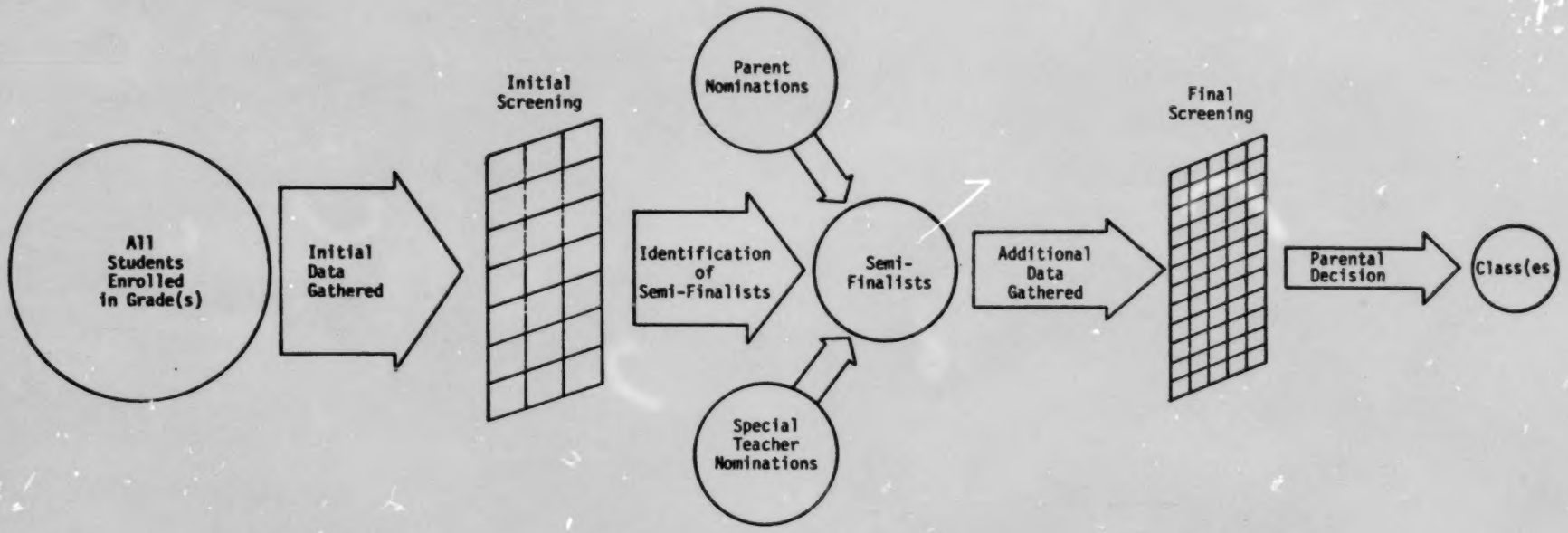
Five: Students who move into the district in subsequent years shall automatically be considered for the program. In order to enter, they must meet the criteria established for their grade level.

Six: A student shall be removed from the program by the district only if a gross error was made in placing him/her because once a child is identified as being gifted, it is cruel to tell him/her that she/he really is not gifted.

Finally, to keep the identification and selection process in perspective, John Gowan's comment should be remembered:

> "At any time in the program there ought to be children answering to the following descriptions that somebody thinks don't belong there: (1) a minority group child, (2) a slow-reader for his ability, (3) a "nuisance", (4) an emotionally disturbed child, (5) somebody's relative, (6) an original creative child, or (7) a school leader. If the program doesn't do anything for any one of these children, they can always be taken out with a minimum of educational damage. If it does do something for them, the guidance committee has the satisfaction of knowing either that (1) it has made a good guess, or (2) that it has acquired an important friend." [20]

Identification Process



WHO ARE THE GIFTED?

Creative and imaginative people are often not recognized by their contemporaries. In fact, often they are not recognized in school by their teachers either. History is full of illustrations. Consider some of these:

Einstein was four years old before he could speak and seven before he could read.

Isaac Newton did poorly in grade school.

Beethoven's music teacher once said of him, "As a composer, he is hopeless."

When Thomas Edison was a boy his teachers told him he was too stupid to learn anything.

F. W. Woolworth got a job in a dry goods store when he was 21 but his employers would not let him wait on a customer because he "didn't have enough sense."

A newspaper editor fired Walt Disney because he had "no good ideas."

Caruso's music teacher told him, "You can't sing, you have no voice at all."

Leo Tolstoy flunked out of college.

Verner von Braun flunked 9th grade algebra.

Admiral Richard E. Byrd had been retired from the Navy as "unfit for service" until he flew over both poles.

Louis Pasteur was rated as mediocre in chemistry when he attended the Royal College.

Abraham Lincoln entered the Black Hawk War as a Captain and came out as a Private.

Louisa May Alcott was told by an editor that she could never write anything that had popular appeal.

Fred Waring was once rejected from high school chorus.

Winston Churchill failed the sixth grade.

Milton E. Larson

TYPE OF PROGRAM

The issue of the projected declining enrollment for the elementary grades caused the Committee considerable difficulty in deciding what type of program to recommend. For example, if the Committee recommends that there be one class per grade level of twenty-six students then for 1980-81 it would comprise 8.6% of the total fourth grade; in 1984-85 the percentage would be 12.7%. Eight and six-tenths percent is an upper limit definition of gifted and 12.7% is well beyond that definition. (The U. S. Commissioner of Education identified giftedness as being three to five percent of the school population; [21] the Board of Regents set forth an incidence rate of five to six percent.[22])

The Committee recommends:

1. For 1980-81 one district-wide instructional group for grades four and five be created.

2. For 1981-82 the fourth-fifth class should remain as a group as a fifth-sixth class and that one third-fourth district-wide instructional group be created.

3. For 1982-83 and beyond the structure of a third-fourth and a fifth-sixth class be maintained.

4. For the students who are initially selected for these classes, the minimum - not the maximum - percentage of the total grade level enrollment shall be 3.0%.

5. That in 1980-81, second and third graders who are in the upper reading groups and hence are probable candidates for the classes receive accelerated instruction in study skills and tools and some systematic exposure to higher level thinking skills. For 1981-82 and beyond this shall occur only at the second grade level.

6. Each instructional group/class would be assigned to a team in a building and be taught by two specially trained teachers, one of whom would be strong in the humanities and the other in the sciences. The Committee firmly believes that a key element to the success of the program is to have at least two teachers work together to share ideas, troubles, successes, strengths, etc.

7. Gifted students should be grouped together for large blocks of time for instructional purposes in:

   reading, language arts and social studies

   science and math

8. Gifted students should not be totally isolated from the remainder of the building and should spend a portion of their time with their fellow students for such activities as:

homeroom
special subjects - art, music, physical education
extra-curricular activities, chorus, intramurals, etc. (This will require special after school transportation arrangements.)

9. In addition to their regular art and music program, the gifted class(es) should receive an additional one hour a week instruction as a group from the art and the general music teacher. During this additional time the art and music teacher shall develop special lessons to correlate with the academic activities of the class.

10. The group should have an aide assigned to it. Just as an aide is needed to assist the teacher in working with students at the lower end of the continuum, so too is an aide needed at the other extreem.

11. Once a group is identified and placed in a building it should remain in that building until the end of sixth grade, if this is possible.

12. For reasons of instructional grouping and transportation, one building should serve as the host school for the gifted classes even though it would be ideal to have a class in each building.

(Programs for the gifted at the second and/or third grade levels discussed in 5 above, shall occur in each school building).

DISCUSSION OF RECOMMENDATIONS

Based upon our three percent criteria for the initial selection of students, we estimate that the size of classes on the opening day of school would be:

1980-81	Grades 4-5	19 students
1981-82	Grades 3-4	14 students
	Grades 5-6	19 students

(See Appendix H for a detailed analysis of class sizes based upon various cut-off criteria.)

The reasons for the three percent level are:

One: Public relations-wise it probably would be much more difficult in the future to make the cut-off level higher (e.g., more from 5% to 4%) than it would be to lower it (e.g. move from 3% to 4%).

Two: The four percent level for 1980-81 for grades four and five would create a class of 26 students. Such a large initial enrollment would not allow all of the following to occur:

a. Provision of space for "late bloomers" - those who currently are enrolled in the grade level but who could be identified as gifted in the future.

b. Provision for increasing teacher sophistication over the years in identifying and referring gifted youngsters. This has occurred in other districts after a program has started.

c. Provision for gifted children who move into the district in the future.

The Committee firmly believes that the initial size of the class must not be so high that it would cause a waiting list to emerge when students other than those in the initial group are identified.

Three: Because we have not yet conducted an identification process, we cannot predict with certainty what will occur. We believe that it would be better to select the top three percent and, if necessary, include three or four students beyond this percentage, than it would be to select the top four percent and eliminate three or four students with the lowest scores.

Four: At different points in the future, it would be possible to raise the minimum cut-off level. For example for grades three and four in subsequent years it might be:

Year	Level	Initial Enrollment
1981-82	4%	20
1983-84	5%	21

Five: By following the above procedure, at no time in the foreseeable future should the enrollment in the gifted program become so large — that is, above seven percent of the total grade level enrollment -- that the program would no longer be considered as a program for the gifted.

OH, THOSE GIFTED STUDENTS!

A superintendent went to his school board with a proposal to group gifted children by ability, to segregate them for special instruction part of the day, to advance them according to ability rather than age, to bus them at public expense to other schools where they could work with other similarly gifted students, and to hire special teachers for them. After the uproar subsided, the superintendent explained that he was only describing what the schools were doing for their athletic teams.

PROGRAM OBJECTIVES

1. The curriculum design set forth in section eight of this report will be implemented.

2. The analysis, synthesis and evaluation levels of Bloom's Taxonomy will be implemented at least seventy percent of the time.

3. The teacher will function more as a resource person and an advisor rather than as the source of knowledge.

4. Students will be systematically exposed to and participate in these types of enrichment activities:

   Type I General Exploratory Activities

   Type II Group Training Activities

   Type III Individual and Small Group Investigations of Real Problems

   a. In 1980-81 the goal will be to have each student do at least one Type II enrichment activity.

   b. From 1981-82 on, the objective will be to have each student who has been involved in the program for at least one year do at least one Type III enrichment activity per year.

5. Creativity shall be encouraged in the classroom.

(NOTE: These objectives perhaps can be better understood after reading section eight of this report.)

TIPS FOR TEACHERS

by

Howard A. Ozmon, Jr.

No book on law says that the young lawyer should not be seen in Argyle socks. Yet knowing this seemingly trivial rule can save clients, particularly rich and staid ones.

Likewise, in education there are small bits of truth not contained in ponderous textbooks. Here are some home truths that can make the difference between success and failure in that all-important first year, and every year.

1. DON'T HESITATE TO BEAT YOUR CHILDREN

   Beat them, that is, to possible sources of information in your community. Don't let the children stump you by talking about places you haven't been. Don't let them bring up books you haven't read. Walk around the community, stopping often in the library.

2. TEACH THEM TO BEG

   In eighteenth century Europe, children were sometimes taught by professionals how to beg for food and money. Some were so successful that they and their teachers became rich. But the begging I refer to is for information. If as teachers we can instill in our pupils the desire to beg for more and more knowledge, never relying upon piled-up stores, never reaching satiety, then we have served them well.

3. TEACH THEM TO HATE

   We all know our pupils should hate sin, but there are other things worth hating, too. They should be taught to hate ignorance; not ignorant men, but the miasma of ignorance that blinds them. They should hate calumny, hyprocrisy, envy, and selfishness. If they hate these things strongly enough, they will do something about them, which is our next point.

4. TEACH THEM TO FIGHT

Children must learn to fight for the things they believe in. One of the great lacks in our time is moral courage. Young people are often afraid to stand up and fight. We can't teach courage as we taught mathematics, but by precept and example we can inspire pupils to take the right road, not merely the easy road.

5. TEACH THEM TO TALK BACK

One of the first rules the average child learns is that he should be seen and not heard. But a child who is not heard does not learn. He must ask questions. A teacher should impress upon children the importance of asking intelligent questions, and with relating answers to other things they have learned. Done in the right manner, talking back is fine.

6. TEACH THEM TO SHOW OFF

Every child likes attention, and it should be given him. When a child is shown how to communicate his knowledge and demonstrate his talents in a pleasing way, he learns how to serve others and make friends. He becomes an asset to society.

If these rules don't fit what you learned from your textbooks, think awhile. Maybe the textbooks were wrong.

CURRICULUM DESIGN

We must always remember when thinking about curriculum that a gifted child is a child first - then gifted. Therefore we have to carefully look at the "whole child" and remember that maturity is developmental. Levels of maturity can neither be skipped nor accelerated beyond the rate at which the child is growing. To state this another way, it is not reasonable to expect a gifted child to study the Greek tragedies with understanding or comprehension

Many program proposals for the gifted contain a list of characteristics of gifted children which too often are looked at as "motherhood" lists and quickly forgotten. Yet a thorough knowledge of these character istics and their instructional implications is essential for a quality program.

Gallagher's book has a list of characteristics of the gifted and their possible concomitant school problems if these needs are not met.[23]

CHARACTERISTICS OF THE GIFTED AND CONCOMITANT PROBLEMS:

Characteristic of Gifted	Possible Concomitant Problems
Critically observes, analyze, skepticism	Teachers feel threatened; peers censure, try to silence discussion argumentative
Emphatic response to people; leadership capabilities	Rejection causes intense reaction (e.g. depression or hostility); may seek to dominate rather than understand others
Intellectual interests, intellectuality	Snobbishness; limited recreational outlets; boring to others; intolerance for lesser capabilities
Large vocabulary; verbal facility; high retention	Inappropriate level of communications; dominates class discussion; unnecessary elaboration
Originality	Perceived as "off the subject" by others; impracticality; frequent breaks with tradition; radicalism
Scholarliness	Anti-intellectual reaction by peers; stuffiness; pedantry
Thinks with logical systems; objective, rational problem-solving	Disregard for intuitive, retrospective, or subjective solutions, rejection of belief, revelation as methods.

The New York State Education prepared a list of meaningful learning activities for the gifted considering their characteristics.[24]

MEANINGFUL LEARNING FOR THE GIFTED

1. Children have a ready access to library and other resource materials.

2. Students are involved in independent study activities. The teacher does not dominate the classroom and does not run the class as a "tight ship" but permits the student to have freedom in selecting and pursuing problems and in creating.

3. Major emphasis is given ideas of merit and the enhancement of these ideas.

4. The teacher's questions are open-ended, with an emphasis on generalization, analysis, and synthesis.

5. The interests and abilities of the students are utilized in planning and implementation of curriculum materials.

6. Discussion, utilizing debate and controversial issues, is freely used in the classroom.

7. Appropriately advanced content is available to the students so that there can be exploration in depth.

Appendix I contains several lists of the characteristics of gifted children. [25] The Committee recommends that these lists be very carefully considered and incorporated into the thinking and planning of the teacher(s) and principal(s) of the gifted in Spencerport.

A crucial factor in the curriculum is that it be qualitatively different, not quantitatively different. Too often a gifted child is asked to do 40 problems on a specific topic whereas an "average" or "bright" child is asked to do 10 problems. The gifted child may also be asked to learn in one-fourth or one-half of a year the same material that an "average" or "bright" child is asked to learn in an entire year. For gifted children, this is a negative reward for using their talents and it is often an important reason why they learn to hide their capabilities at a very early age.

The single most useful tool for teachers and program planners to use in developing a qualitatively different program for gifted children is Bloom's Taxonomy. It is a hierarchical classification of educational goals/objectives. It is "a classification of student behaviors which represent the intended outcomes of the educational process . . . [It is a classification of] the intended behavior of students - the ways in which individuals are to act, think, or feel as the result of participating in some unit of instruction." [26]

The taxonomy contains six major classes:

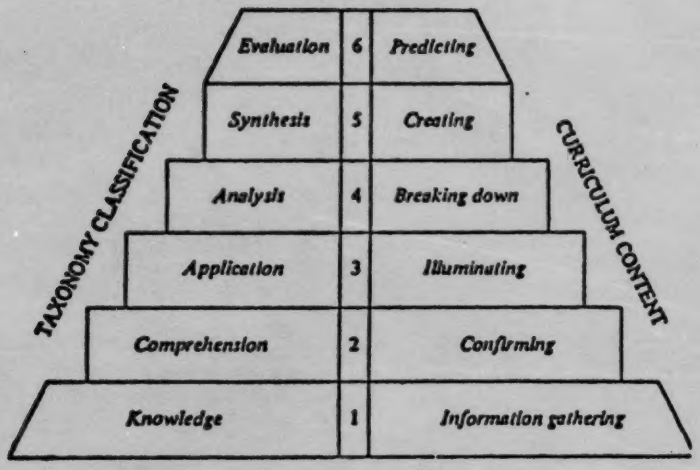
1.00 Knowledge
2.00 Comprehension
3.00 Application
4.00 Analysis
5.00 Synthesis
6.00 Evaluation

It ranges from the simple to the complex based on the idea that "a particular simple behavior may become integrated with other equally simple behaviors to form a more complex behavior." [27]

Sandra Kaplan succinctly illustrated Bloom's taxonomy as follows on the next page. [28]

Roger Taylor, a nationally famous consultant on the gifted and talented spends considerable time on the implications of Bloom's Taxonomy. He reports that in the best schools in the nation at the elementary level, 90 to 95% of the instructional program is at the knowledge level; at the secondary level, the percentage is 95 to 100%. [29] Bloom confirms this in his book when he says; "Probably the most common educational objective in American education is the acquisition of knowledge or information . . . The most cursory reading of the standardized tests available or of teacher-made tests would indicate that tremendous emphasis is given in our schools to this kind of remembering or recall." [30]

BLOOM'S TAXONOMY



Types of Learning	What Students Do	What Teachers Do
Evaluation	Engages in commitment, judges, disputes	Accepts, lays bare to criteria, harmonizes
Synthesis	Discusses, generalizes, relates, compares, contrasts, abstracts	Reflects, evaluates, extends, analyzes
Analysis	Discusses, details, uncovers, lists, dissects	Probes, guides, observes, acts as a resource
Application (convergent and divergent production)	Solves novel problems, demonstrates use of knowledge, constructs	Shows facilitates, observes, criticizes
Comprehension	Explains, extends, demonstrates, translates, interprets	Demonstrates, listens, reflects, questions, compares, contrasts, examines
Mastery of subject matter (knowledge)	Responds, absorbs, remembers, rehearses, covers, recognizes	Directs, tells, leads, shows, delineates, enlarges, examines

Taylor's and Bloom's statements may be diagrammed as follows:

CLASSES OF OBJECTIVES	PERCENT OF TIME ALLOCATED	
	K-6	7-12
1.00 Knowledge	90-95%	95-100%
2.00 Comprehension		
3.00 Application		
4.00 Analysis	5-10%	0-5%
5.00 Synthesis		
6.00 Evaluation		

Taylor maintains that the regular instructional program, however, should be organized as follows:

CLASS OF OBJECTIVES	PERCENT OF TIME ALLOCATED
1.00 Knowledge	30%
2.00 Comprehension	30%
3.00 Application	30%
4.00 Analysis	
5.00 Synthesis	10%
6.00 Evaluation	

Teaching organized as above is "dynamite" teaching because it invites a student to become both emotionally and intellectually involved.

The master teacher will start a lesson at the application level, then go to the knowledge level, then return to the application level and conclude at the three higher levels. [31]

Bloom substantiates Taylor's statements when he says "Our general understanding of learning theory would seem to indicate that knowledge which is organized and related is better retained than knowledge which is specific and isolated." [32]

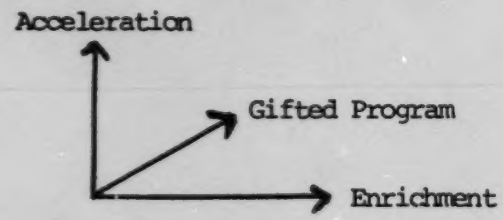
Taylor advocates, and the Committee recommends, that in order for the curriculum and instructional program for the gifted to be qualitatively different, it be organized as follows: [33]

Classes of Objectives		Percent of Time Allocated
1.00	Knowledge	10%
2.00	Comprehension	
3.00	Application	
4.00	Analysis	90%
5.00	Systhesis	
6.00	Evaluation	

To help teachers do this Taylor has prepared several superb worksheets. They can be found in Appendix J.[34] The Committee recommends that the teacher(s) of the gifted use these worksheets daily. The Committee also recommends the teacher(s) of the gifted be provided with (if they do not already own one) and carefully read (or reread) Bloom's book.

Because of their characteristics, it sometimes is easy to assume that gifted children know more than they do. Consequently, their teacher needs to carefully ascertain what basic skills they do, or do not, know and then to teach them what they need.

The curriculum content of the program should parallel the major broad areas of the curriculum for the grade level of the child. For example, fourth grade social studies should be devoted to a study of significant persons throughout American History as opposed to studying world geography. The curriculum should be a blend of both acceleration and enrichment as illustrated below.



For mathematics, however, acceleration should be emphasized, since research shows that it is beneficial in this discipline.[35]

One of the major needs of the gifted is that they know how to use various tools in order to independently both identify and solve problems and to retrieve existing knowledge.

> "'Learning how to learn' is something everyone should be able to do as a result of schooling. It is not, however, a natural outgrowth of the schooling process. It is something that must be systematically taught. The primary skill required, the "how" of learning, is decision-making. Formal schooling has relegated more decision-

making to the teacher than is appropriate for developing "how to learn" skills in students.

"In order to transfer decision-making in the learning process from the teacher to the student, new behaviors must be learned by both. The teacher has the two-fold task of creating an instructional environment which allows for student decision-making and teaching the student how to make decisions. Without both components, success in increasing student decision-making is doubtful." [36]

The following topics should be incorporated into the curriculum so that students in this program can acquire the necessary skills to function as independent learners and problem solvers:

1. Good study habits.

2. Library skills and tools (overemphasis on the encyclopedia should be strictly avoided).

3. Outlining - that is the concept of outlining as opposed to its mechanics.

4. Critical thinking skills.

5. Decision-making.

6. Creative problem solving.

7. Descriptive statistics.

8. Comparative statistics.

9. Typing.

10. Computer languages, this should be done with microcomputers such as the Apple II, Compucolor, etc. With the proper equipment these machines can also directly interface with the BOCES No. 2 DEC-10 mainframe computer.

11. 35 mm photography for expression in areas such as language arts.

12. How to frame a question. That is, how to find and define a problem and then ask the right questions so that through a systematic vigorous process the student can come to a conclusion which can be justified before a real audience - not just the teacher grading a paper or an oral report.

    Regarding this Renzulli says: When asked to identify the most creative project-product which they developed during the year and then what happened to it, "the almost universal answer was: 'I put it in my folder and waited for the teacher to look at (or grade) it.' It seems nothing short of criminal negligence to do everything in our power to

encourage youngsters to develop their highest levels of creative thinking, and then overlook the step which is a natural consequence of real world productivity - communication of results to appropriate audiences." [37]

13. Basic research skills. First those which are general to all subjects followed by those which are peculiar to each discipline.

Too often a discussion of a proposed curriculum ignores the place of values in a program. Gallagher in his classic book Teaching the Gifted Child addressed this issued in, interestingly enough, the chapter on Language Arts for the Gifted. He wrote, and the Committee concurs:

> " It is in language arts classes that some degree of discussion of values and judgment is expected to come into play. In the fields of science and mathematics the emphasis is on *how* to obtain the answer rather than the social usefulness of the answer. Social studies too often becomes a factual recounting of past events. If issues related to what is "important," "valuable," or "proper" do not get raised in the language arts curricula, they are unlikely to appear elsewhere.
>
> " One day in class, Zelda suddenly became very upset during a discussion of the plight of Vietnamese children. She broke into tears and for a period of time was inconsolable. It was clear that she felt very deeply about the injustice of innocents' being hurt. The other children looked at her strangely and were, in their own turn, upset that a peer would show such intense emotion over something that was happening so far away.
>
> " It was then that the teacher realized the special burden felt by those talented and gifted students who had a more highly developed ability to empathize and to relate to faraway places and faraway times. Such ability can bring delight, when imagination carries one to adventures in distant places and distant times, but it can bring deep concerns about issues like justice and morality that do not seem to be within the comprehension of the child of average ability at the preadolescent age.
>
> Zelda's teacher also has something else to concern her. Who will instruct these talented youngsters in the areas of values or ethics or morality? The churches in this town, as in many others, have become of decreasing importance in the lives of the citizens. The schools, nervous about offending members of the community by injecting themselves into controversial issues, become jittery at the very thought of having a full-fledged discussion of the rights of citizens. There have been days and weeks where a full-fledged discussion of the Bill of Rights, to say nothing of population control or war and peace, could get the incautious teacher in a great deal of difficulty. Where, then, can Zelda go for instruction? To her parents, whose own search for what is "right" is hardly more coherent than Zelda's? Who will provide them with the bedrock of evaluative concepts that will carry them through the difficult and important decisions that lie in front of them? There is perhaps no more important question that the schools have to ask themselves than that.

It is a rare student who has heard a vigorous discussion in the public schools over rights of property versus civil rights, or the rights of employers versus the rights of employees--two of many issues about which many citizens are today seeking guidance. The reasons for this ethical vacuum are not hard to find. The schools, highly sensitive to partisan criticism, have tended to shun controversy as the easy way out. Another reason that keeps the public schools from more effective action is the philosophy that the school's primary mission is to pass on information and job skills, not values.

The focus of a typical unit or a discussion in the schools is "What is the *right* answer?" But suppose that there is no one set of correct answers but only a large number of answers, depending on the values each person holds. How does a teacher finish a topic under those circumstances?

Since many ethical issues are so open to debate characterized by highly charged emotions, the easiest thing to do is to ignore them, to say that these are the problems of the church or the family, or to rationalize them away on the basis of the supposed mental immaturity of the student.

We may be told that 10-year-olds have not had enough life experience to be able to make such decisions or to think clearly on such matters. Later on, much later on, perhaps they will be able to take up the discussion of these issues! And so they probably will--in the informal atmosphere of the dormitory, where few discussion topics are avoided because of the fears of a nervous adult society that the younger generation will learn too much, too soon.

One drawback to the schools' becoming involved in discussions on values and ethics may be the very real fear that such lessons on values could easily become indoctrination by teacher or school. This is a justified fear, but there is a way around the dilemma. The school can concentrate on *how* the child can make value decisions rather than the nature of the conclusion he arrives at. By focusing on the *process* by which such decisions are made, the school need not take positions on such controversial issues as capital punishment, freedom and responsibility of the press, and the like." [38]

Because of the greater gifts which gifted children have for language and for the understanding of complex ideas, they need to be provided with a stronger base for the study of values and for the beginning of a base for making intelligent judgments of conflicting ideas. What should be "taught are the techniques and means by which value statements can be judged and evaluated, thus giving the gifted student more tools with which to be independent of propaganda and of unfair persuasion." [39]

Implementation of the above curriculum recommendations in this report will, among other things, require careful record keeping by the teacher so that subsequent teachers can know what occurred.

Renzulli with his Enrichment Triad Model made a major contribution to the field by proposing a design for implementing many of the above curriculum ideas. Based upon his observation and evaluation of many gifted programs, he reached the conclusion that there are three basic types of enrichment activities which gifted students do in class. They are:

Type I "Those activities and experiences that are designed to bring the learning into touch with the kinds of topics or areas of study in which he or she may have a sincere interest." [40]

Type II "Those methods, materials and instructional techniques that are mainly concerned with the development of thinking and feeling processes . . . The objective of Type II enrichment is to develop in the learner the processes or operations (the 'powers of mind') that enable him or her to deal more effectively with content." [41]

Type III "Those activities in which the youngster becomes an actual investigator of a real problem or topic by using appropriate methods of inquiry." [42]

A program for the gifted should include each of the above types of enrichment activities. Having all students do a Type III activity, however, should be a major goal of the program. In Type III activities students should work on real problems in which they are interested. A major goal of their work should be to produce a product for a real audience for without producing and disseminating the product of their work, it would be merely an exercise. Renzulli's concept can best be understood by the following actual example: [43]

Prototype of a Type III Enrichment Activity in Social Science

A small group of students in a middle-grade program for the academically talented got into an argument about an issue over which political candidates were divided in a forthcoming election for city government. The issue involved the construction of an oil refinery on the city's waterfront and opinion was divided over whether or not the majority of voters were in favor of the project. Some students supported the position of candidates who were against the refinery because of environmental concerns while others felt that the refinery was needed to help the city's sagging economy and high unemployment rate.

The students decided that they would like to assess the status of voters' attitudes and the teacher helped to focus the problem by suggesting that the students conduct a questionnaire study. It was at this crucial point that the teacher decided to provide the youngsters with methodological assistance only, and to do this she consulted with a librarian at a nearby college. The librarian suggested that the teacher look through the sections on Psychometrics and Questionnaires and she quickly located the following books:

Oppenheim, A.N. Questionnaire Design and Attitude Measurement. New York: Basic Books, 1966, 298 pp.

Shaw, M. & Wright, J. Scales for the Measurement of Attitudes. New York: McGraw-Hill, 1967, 372 pp.

These books deal with basic issues in the methodology of attitude study such as instrument design, question wording, sampling, and advantages and disadvantages of several scaling techniques. The book by Shaw and Wright also included a compendium of various types of questionnaires, checklists, and rating scales. The teacher also brought in a few sample copies of a journal that she located entitled Public Opinion Quarterly and this helped to heighten student interests about the entire field of polling and attitude measurement. Although these materials are written for college-level students, the gifted youngsters were able to understand most of them and the teacher assisted by explaining some of the more difficult concepts.

Following suggestions outlined in Oppenheim's book, the youngsters constructed a pilot version of their questionnaire and field tested it on a small sample of students and parents. Feedback obtained from field testing was used to revise certain aspects of the instructions and a number of items after which a final version of the questionnaire was mailed to a random sample of citizens in the community. The teacher provided additional methodological assistance by obtaining the following two books:

Blalock, Hubert. Social Statistics. New York: McGraw-Hill, 1960, 465 pp.

Smith, G. Milton. A Simplified Guide to Statistics. (Fourth Edition) New York: Holt, Rinehart, and Winston, 1962, 244 pp.

These books contain discussions about how to analyze different types of data obtained from questionnaires and they also include information about how to prepare histograms and graphic representations of statistical findings. The students developed statistical, narrative and graphic summaries of the results of their investigation and prepared a final report. Presentations about the results of the study were made to other groups of students and to persons attending a PTA meeting. Parts of the report were also included in a newsletter distributed by the school and in the school news section of a local newspaper.

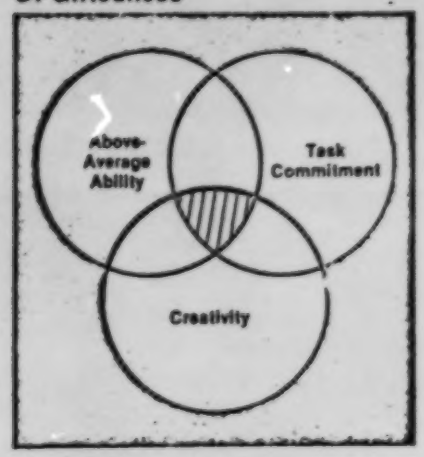
Regarding the overall structure of a curriculum for the gifted, the teacher(s) and principal(s) of the gifted also will need to consider the impact of Renzulli's definition of giftedness. The basis for this definition of the gifted is the follow-up studies which have been done on Terman's students over the past thirty years. These studies resulted in the following conclusion:

> ". . .[A] detailed analysis was made of the 150 most successful and 150 least successful men among the gifted subjects in an attempt to identify some of the nonintellectual factors that affect life success . . . Since the less successful subjects do not differ to any extent in intelligence as measured by tests, it is clear that notable achievement calls for more than a high order of intelligence.

> The results [of the follow-up] indicated that personality factors are extremely important determiners of achievement .... The four traits on which [the most and least successful groups] differed most widely were *persistent in the accomplishment of ends, integration toward goals, self-confidence, and freedom from interiority feelings.* In the total picture the greatest contrast between the two groups was in all-around emotional and social adjustment and in *drive to achieve.* (Emphasis added)" [44]

Based upon this Renzulli defined the ingredients of giftedness as above-average ability, task commitment, and creativity. The interrelationship of these factors is illustrated below:

Figure 1. The Ingredients Of Giftedness



Giftedness, then, is defined as the shaded area which represents the "interaction among these three basic clusters of human traits - . . . Gifted and talented children are those possessing or capable of possessing (emphasis added) this composite set of traits and applying them to any potentially valuable area of human performance. Children who manifest or are capable of developing (emphasis added) an interaction among the three clusters require a wide variety of educational opportunities and services that are not ordinarily provided through regular instructional programs." [46]

Renzulli and his followers then recommend that children who possess these three clusters of traits be identified and placed in gifted programs.

However:

1. A recent article in the February 1980 issue of Psychology Today indicates that the difference between the successful and unsuccessful Terman subjects may be due to other factors such as: socio-economic status of the family, stability of the home, "liveliness" as demonstrated by number of collections as a child and participation in extra-curricular activities, and slightly better social adjustment as perceived by teachers and parents. [46]

2. There is considerable attention in the literature and by consultants to the problem of the "Gifted Underachiever." One of the characteristics of these children is that they do not have task commitment.

   "The most predominate feature of their behavior was the characteristic of withdrawal.. . . . In short, the underachiever has adopted classroom behavior that is nondaptive for effective learning." [47]

3. Creativity is an exceedingly difficult characteristic to assess. For example, Getzels and Dillon in a recent review research on gifted children comment:

   "Whereas the issues regarding giftedness such as high intelligence and academic aptitude seem relatively settled . . . the issues regarding giftedness such as high creative ability are largely unsettled, the studies are as yet fragmentary, and the findings to be discussed in this section necessarily more tentative than those reviewed in the preceding section. "There is no universally agreed upon definition of creativity, and hence there are no measures of it which are in any degree widely accepted or used as the IQ metric is for intelligence." [48]

For these reasons, the Committee believes that one of the goals of the program should be to foster task commitment and creativity among those children identified who do not already possess these traits.

One observation needs to be made regarding creativity and problem solving. Because these are often "taught" through the use of games, activities and exercises which are interesting to the students, the teacher can easily "fall into the trap" of allowing the program to become merely a collection of "fun and games activities." [49] Hence the need to develop a qualitatively different program which emphasize the higher intellectual skills. Also, in the adult world, creativity cannot occur without knowledge. Hence,a program for the gifted must, along with other characteristics,be intellectually vigorous. When students work with creativity and problem solving exercises, they need to learn from what they are doing; they need to know the purpose of what they are doing, and they need to be able to describe how or what they are doing would be different or done differently if they were in a regular classroom.[50]

This curriculum design description for the gifted appears to be mammoth - beyond the scope of the time constraints of a school. Yet it can be done if:

1. Very large blocks of time are made available for the students and teachers to work together.

2. The curriculum is flexible.

3. The teacher works "more as a resource person and an advisor rather than the source of knowledge." [51]

4. Students have, within broad limits, freedom of choice.

5. Extensive outside, community resources and personnel are used. Renzulli [52] describes how it is practical to accomplish this objective.

6. Adequate time for program/curriculum planning is provided.

The Committee recommends that all of the above be characteristics of Spencerport's program for the gifted.

In conclusion, a program for the gifted is not only an attempt to truly fulfill New York State's motto of "Let each become all that he is capable of being," but also an effort to improve society by identifying and working with those who probably are most likely to be the leaders of the future. Getzels and Dillon observe that:

"The present conceptions and investigations of giftedness, creativity, and talent deal almost exclusively with superiority in problem solving; they say very little about superiority in problem finding. Yet the signal mark of the truly gifted or, for that matter fully functioning person is not only the possession of the technical skills and information for solving problems but also the curiosity and imagination for finding problems. Indeed, there are those who argue that the supreme problem-solvers of the day are the information-processing machines, and that the rate and quality of new discoveries will depend upon the people who can find and formulate the significant problems to be solved. In this sense, only discovering a problem may be a more significant human achievement than finding the solution to the problem once formulated. As Einstein and Infeld have put it:

> 'The formulation of a problem is often more essential than its solution, which may be merely a matter of mathematical or experimental skill. To raise new questions, new possibilities, to regard old problems from a new angle, requires creative imagination and marks real advance in science.'

"Thousands of able men and machines are prepared to solve problems and test theories. What is needed are the most fertile theories, the new and more heuristic problems, that will give direction and meaning to what will be done. In research as in instruction it is necessary to redress the current imbalance and attend not only to presented problem situations and problem-solving orientations and activities, but also to discovered problem situations and problem-finding orientations and activities." [53]

TEACHER SELECTION

The selection of excellent teachers is a key ingredient of success. The following criteria should be used:

1. Is the candidate amenable to further growth and training?

2. Will the candidate be threatened by having students who are smarter and know more than himself?

3. Is the candidate still intellectually alive and interested in learning? The candidate should be bright but not necessarily billiant.

4. Does the candidate have a broad academic background with at least one in-depth area of strength?

5. Does the candidate have an acquaintance with the major areas of knowledge?

6. Is the candidate an excellent teacher?

7. Does the candidate have the ability to communicate effectively with adults? (This is a very important criteria.)

8. Does the candidate relate well to fellow classroom teachers?

9. Is the candidate willing and able to work hard? Does she/he have stamina, high energy levels? Is he/she flexible/resourceful?

10. Is the candidate a good classroom manager? Is the candidate an organized person?

11. Is the candidate able to be "a guide on the side" as opposed to the "sage on the stage"?

12. Does the candidate have a high degree of honesty and integrity?

Further, the Committee recommends that first preference should go to hiring present staff as teacher(s) of the gifted if they are interested in and dedicated to the concept of education for the gifted.

We also recommend that one of the screening devices be to ask each candidate to state in writing whey he/she wants to be a teacher of the gifted and what strengths he/she brings to this position.

CHILDREN LEARN WHAT THEY LIVE

If a child lives with criticism, He learns to condemn.

If a child lives with hostility. He learns to fight.

If a child lives with ridicule. He learns to be shy.

If a child lives with shame. He learns to feel guilty.

If a child lives with tolerance. He learns to be patient.

If a child lives with encouragement. He learns confidence.

If a child lives with praise. He learns to appreciate.

If a child lives with fairness. He learns justice.

If a child lives with security. He learns to have faith.

If a child lives with approval. He learns to like himself.

If a child lives with acceptance and friendship.
He learns to find love in the world.

Dorothy Law Nolte

INSERVICE EDUCATION

Inservice education is a key element of a program for the gifted. Renzulli's study "Identifying Key Features in Programs for the Gifted" [54] lists the selection and training of the teacher as being the most important key and ranks staff orientation fifth.

Regarding teacher training he says: "The relatively greater demands made upon teachers by vigorous and imaginative young minds require that special attention be given to the selection and training of teachers for gifted and talented students." [55]

Regarding staff orientation he says: "In order to succeed any educational venture needs the cooperation and support of those persons who are responsible for its implementation. A sympathetic attitude toward special provisions for the gifted and a basic understanding of the theory and operation of a special program on the part of all staff members are considered to be important elements in helping to realize a program's maximum effectiveness. In most instances, staff members not directly connected with the gifted program usually participate indirectly by identifying and recommending students for placement. It is therefore necessary that they recognize the nature and needs of potential program participants, are knowledgeable about available facilities, and are committed to the value of differential qualities of experience." [56]

The Committee recommends that the community should have a general orientation to the nature and purpose of the program both before it starts and as it continues.

Regarding the two fourth-fifth grade teachers of the gifted, we recommend that they be released as of Easter vacation (i.e. April 2, 1980) to receive inservice training under the auspices of a consultant on an independent study basis.

These teachers would do the following types of activities during the spring and summer:

1. Examine the current district curriculum to see how it can be adapted to the needs of the gifted.

2. Begin to develop broad units to be taught next year.

3. Revisit area programs for the gifted to see what type of materials and practices are most helpful.

4. Order needed supplies.

5. Begin to investigate possible field trips and resource persons for the gifted.

6. Assist in the student identification process.

7. Assist in the staff and community orientation process.

We believe that to expect next year's teacher(s) of the gifted to do all of the above during July and August only, is to expect the impossible.

We recommend that during the summer the teachers attend either the annual training session sponsored by BOCES No. 2 if it will be appropriate to their needs (It might not be appropriate because they are planning a workshop for junior high school teachers) and/or the Confratute '80 Workshop sponsored by the University of Connecticut. (See Appendix K) This recommendation also applies to the principal of the building in which the program will be located. However, this may cause some problems because the workshop is scheduled for the middle of the principal's summer vacation.

We further recommend that the second and third grade teachers receive in-service training this summer so that they can begin to understand the characteristics and needs of the gifted and to develop plans to implement the instructional recommendations for their level indicated in the Type of Program section.

Those teachers who will be rating students with the Renzulli scales as a part of the identification and selection process will need to attend a workshop on how to use them.

We also recommend that an inservice education program on "Education for the Gifted" be offered to interested teachers during the 1980-81 school year.

Finally, because of the important role of problem-solving in a curriculum for the gifted (see pages 31, 33, and 37-39) we recommend that the teacher(s) attend the internationally recognized Creative Problem Solving Institute held at S.U.C. Buffalo each June.

Regarding the secondary schools: If our program design is approved and implemented, the first students from the program will enter Cosgrove in September 1982. Accordingly, we recommend that in the second semester of 1980-81 appropriate in-service activities occur regarding the nature and design of this program and the needs of the gifted student in his/her early adolescent years. We also recommend that a junior high school committee similar to ours be established in the winter of 1980-81 so that it will not be under the severe time pressures we had. The purpose of this Committee would be the same as ours: to become acquainted with the field, to immerse itself in the literature, to visit outstanding junior

high school programs which will build upon the elementary program.

Regarding the community: We recommend that there be an in-service program for parents whose children are invited to enter the program. This program should cover topics such as:

the broadening concept of giftedness

characteristics of gifted students

how parents can assist their gifted children

the nature,purposes and characteristics of the program for which their child is being considered

student identification and selection procedures

This program should be organized and taught by a team consisting of the principal of the building in which the program will be located, the teacher(s) of the gifted, and one parent from this committee.

COMMUNICATIONS

Planned continuous communications are an important aspect of all school programs. This is especially true for new programs as they start and for programs for special groups of students.

Regarding communications with the staff:

First, a group from this committee should meet with each building faculty, K-6, to present the report, explain it, and answer questions. During this meeting, identification procedures and criteria should be stressed.

Second, as discussed above, in-service education should occur.

Third, after the program starts communications should include all of the following vehicles:

a. Periodic formal and informal meetings with sending teachers by the teacher of the gifted to discuss what is actually occurring and what students are doing.

b. Release regular classroom teachers to visit the gifted class(es).

Regarding communications with the parents of the children in the class: This should be done through a periodic newsletter, orientation and follow-up meetings, individual conferences, invitations for parents to visit the class, help the teacher, etc. After the program has been in operation for awhile, demonstrations by students and workshops may be an excellent agenda item for one or two of the periodic formal meetings.

An important vehicle of school-home communications is the report card. The Committee recommends that the regular district report documents, and the guidelines accompanying them be used. Each record card, document, report, etc. should be marked with the name of the program to indicate for future reference, that the child is in the program.

Regarding communications with the community: Press releases should be issued periodically through the building newsletter, The Cornerstone, and the general press. Panels of parents and/or others familiar with the program should be available to speak to interested groups.

The responsibility for organizing and implementing the ongoing communications program should rest with the principal of the building in which the program is located. He/she should work cooperatively with the teacher of the gifted class(es) and the central office staff while fulfilling this responsibility.

A series of publications should be developed to describe the program. These documents should describe a different aspect of the program such as the selection procedures, curriculum, etc. These publications should be used as needed to communicate with interested people.

SUPPORT SYSTEMS

Once the planning for the program has been completed, the students selected, the teachers hired, and the classes started, it is very easy to forget that those directly involved need support if they are to function effectively. Without outside stimulation, teachers are likely to rapidly "burn-out." The children will need help in dealing with a new situation, and parents are likely to face new situations as their children come home from school. Therefore, it is wise to develop the necessary support systems ahead of time.

Regarding the teacher: There should be monthly, or bimonthly meetings with other teachers of the gifted in Monroe County to share experiences and ideas. The Committee recommends that Dr. Bowman from BOCES No. 2 be asked to assume a leadership role with this group of teachers.

The Committee recommends that arrangements be made with a qualified consultant to meet with the district teachers and administrators on a periodic basis to discuss instructional and program issues as they develop.

Substitute teachers should be trained regarding the objectives and techniques of the program since daily class activities will be intellectually significantly different from those in the regular program. Substitute training should occur in late September or early October.

Regarding the children: Different children will exhibit the following types of problems and may need special help dealing with them:

1. Adjustment to both a new school and a new teacher.

2. Negative reaction to competing with a class comprised of students of approximately equal ability.

3. Some may feel a need to be "a big fish in a little pond."

4. Self-concept problems. This will be especially true of those whose prior school achievement was not commensurate with their ability.

Regarding the parents: Since parents of gifted children often have problems in understanding the special needs of their children , parental counseling, both group and individual, may be needed.

The Committee at this time does not know who should do the counseling, how much time it probably will require and what should be the qualifications of those who do the counseling. The Committee recommends that it be authorized to explore this situation during the spring of 1980 using consultant assistance.

The support systems which need to be established for the students and their parents are very important when one recalls the unusually high percentage of gifted children who either are dropouts or adolescent suicides. The problems which lead to these extreem behaviors begin early in a persons life and intensify as one grows older.

"Is that any way to talk to a gifted child?"

ADMINISTRATIVE RESPONSIBILITY

Renzulli's study identified this as one of the seven key issues regarding program success. Regarding this topic Renzulli said: "A clear designation of administrative responsibility is an essential condition for the most efficient operation of all school programs. Although size and resources of a school system will determine the amount of administrative time that can be allocated to the gifted student program, it is necessary that the person in charge of even the smallest program be given sufficient time and resources to carry out his administrative duties in this area." 57

Administrative support at both the building and district level is essential during both the planning and implementation phases. Administrators should provide supervision, strong leadership and should facilitate problem solving.

The Spencerport School District should provide:

1. Appropriate materials in sufficient quantities in both the classroom and the library.

   Also, a special district-wide library pertaining to the education of the gifted should be established.

2. A transportation program that will enable students to be full-time citizens of the school they attend. (Without studying this issue in detail, which cannot be done until the program location is known and until the actual students are selected, the Committee believes at this juncture that this recommendation could well require two or three special bus runs in both the morning and afternoon.)

3. Stability of program location. Once students are up-rooted from their home school and moved into a new school, they should not be moved again before the seventh grade. (Note: This would not apply to students who drop out of the program; they would return to their home school.)

4. The Committee strongly believes that it would be most unfair to the gifted children of this district to establish an elementary program and then not to have a specially designed program suited to their special needs at the secondary level; therefore, if the Committee's proposal that a program for the gifted be established at the elementary level is approved, then at the same time a commitment must be made to extend the program into the Junior and Senior High Schools as the students move through the grades.

This means budgetary allocations for program proposal planning, teacher training, major curriculum revisions and/or new courses, program development, materials, etc.

One further point needs to be made now. If the type of program we recommend is approved, then the first class of students to move through the secondary schools will be small, about 10-15. The second and subsequent classes will be larger: about 20-25.

5. Appropriate liaison with the BOCES No. 2 program for the gifted.

6. Money to finance a good program for the gifted - as is done for the handicapped who are equally far removed from the "average."

EVALUATION

The Committee recommends that the Key Features Design be used as the evaluation model for this program.

The first step is that each group which has a direct or indirect interest in the program such as the students, teachers, parents, administrators, Board members, etc. is surveyed to determine what are the major questions they would like to have answered in an evaluation of the program for the gifted. Based upon the responses to this questionnaire and upon a knowledge of which elements of a program are essential to its success, [59] a matrix composed of Key Features and Sources of Data is created and the cells are filled in. (See Figure 2). Thus the completed matrix provides an overview of the entire evaluation.

After the matrix is completed and Data Collection and Analysis Guide (See Figure 3) is prepared for each Key Feature, this guide provides more detailed direction for gathering and processing information relevant to each key feature. [59]

Implementa tion of this recommendation might be done by the Research and Evaluation Department of Monroe-Orleans BOCES No. 2. If this is not possible, then a consultant would have to be hired to do this work.

In order to measure the objectives, the Committee at this juncture recommends that the following instruments be used:

Objective 2	Class Activities Questionnaire developed by Steele, House and Kerins
Objective 2	Galleeli's Activity Mindset Self Inventory
Objective 3	Flander's Interaction Analysis
Objective 5	Torrance Tests of Creativity

An overview of the entire Key Features Design Model appears in Figure 4.

Figure 2
Matrix of Key Features and Sources of Data

Key Features

Sources of Data	Student Growth	Levels of Thinking and Classroom Conditions	Attitudes Toward Program	Identification Procedures	Etc.
Students	Pre- and Post-Tests of Creativity, Critical Thinking, etc.	*Class Activities Questionnaire* Interviews	Questionnaires Interviews (Random Sample)		
Program Teachers	Evaluation of Student Growth Forms (A Structured Anecdotal Report)*	*Class Activities Questionnaire* Logs	Interviews	Time and Effort Reports Follow-up Questionnaire	
Parents			Questionnaires Interviews (Random Sample)	Follow-up Questionnaire	
Student Selection Committee (Including Records)				Time and Effort Reports Rating Scale (on Usefulness of Information) Interviews Analysis of Records	
Non-Program Teachers	Rating Scale		Questionnaires Interviews (Random Sample)	Time and Effort Reports Follow-up Questionnaire	
Consultants	Student Product Rating Form				
Building Principals and Coordinators		Questionnaires	Interv ews "Prob ems" Log	Time and Effort Reports "Problems" Log	
Secretaries				Time and Effort Reports	

*See Figure 17

Figure 3

DATA COLLECTION AND ANALYSIS GUIDE

Key Feature I: Student Identification Procedures

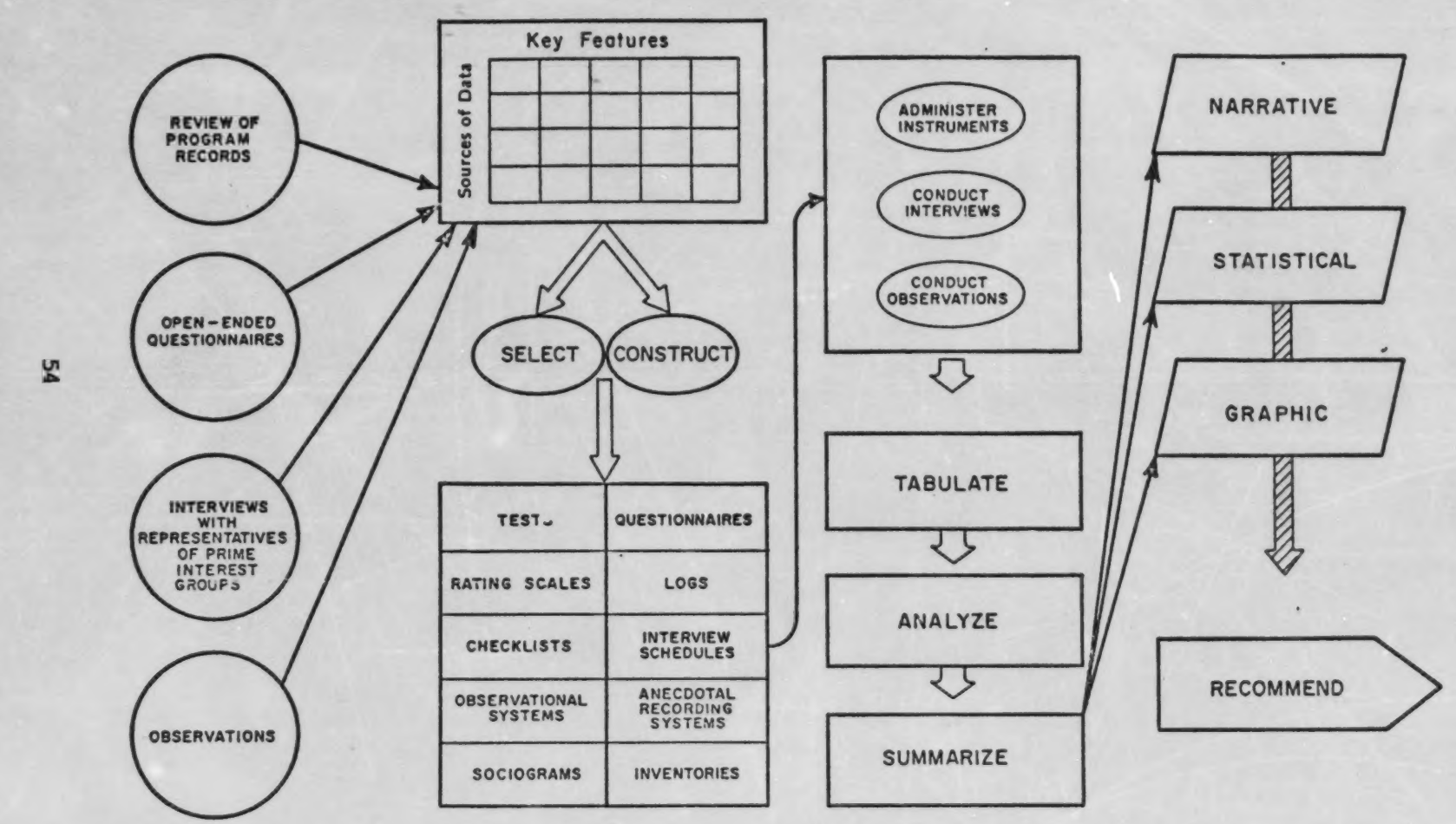
Activity Being Evaluated	Source(s) of Data	Data Collection Method	Data Analysis	When Gathered
1. Cost of identification for case study approach and traditional approach.	Personnel involved in identification Teachers Secretaries Psychologists Administrators	Time and effort reports Costs of instruments	Summary of hours multiplied by hourly rates of personnel	Oct.-Dec., 1974
2. Problems involved in each identification approach	Personnel Parents	Questionnaires Interviews Logs	Frequencies Percents Summaries of comments	Oct.-Dec., 1974 Follow-up in April, 1975
3. Percentage of students nominated or preselected by tests	Administrator of identification process in each district	Analysis of records	Percentages	Conclusion of preselection (Nov. 30, 1974)
4. Efficiency and effectiveness* of each selection approach	Administrators Personnel involved in selection Teachers Psychologist	Time and effort reports Analysis of records Questionnaires Interviews Tests	Summary of hours multiplied by hourly rates of personnel Frequencies Percents Summaries of comments	Conclusion of selection process Follow-up in January, 1975 and April, 1975

*_Efficiency_ will be measured by comparing the number of gifted who are identified by each method with the total number of students who are screened. _Effectiveness_ will be measured by comparing the students identified as gifted by each method with the "true" number of gifted students. The "true" number of gifted students will be determined by analyzing various test and performance information.

Prepared for The Alpha Project for Able Learners, Superintendent of Public Instruction, Olympia, Washington 98504

Figure 4

OVERVIEW OF THE KEY FEATURES EVALUATION SYSTEM



BUDGET

I. 1979-80 School Year

Released time for two teachers for April, May, June 48 days, 1/200 of BA-1 - $11,300	$ 5,424
Creative Problem Solving Institutes for two teachers Registration - $275 Housing and meals on campus - $125	800
Cost of administering WISC-R Outside help only - 3000 (Option 1) Local plus outside personnel (Option 2)	1,800
Consultant to Committee for Support Systems	150
Clerk to record and process data for student identification 2 - for 6 hours a day, 5 days a week for 4 weeks @ $3.10/hr.	744
	$ 8,918

II. 1980-81 School Year

Confratute '80 - July 28 - August 8 2 teachers and 1 principal @ $800 each	$ 2,400
Summer Inservice Workshop (July 7-18?) 2 teachers of the gifted 8 second and third grade teachers who are likely to have upper level groups 4 hrs. day/$7.00 per hour/10 days	2,800
Consultant	1,000
Summer Curriculum Work (July 21-25?) 2 teachers of the gifted 4 hrs. day/$7.00 per hour/5 days	280
Fall Inservice Course for Elementary Teachers	750
Spring Inservice Course for Cosgrove Teachers	750

1980-81 Budget continued

Clerks to record and process data for student identification in July 2 Clerks/6 hrs. day/1 week/$3.10 per hr.	186
Classroom teachers for gifted class MA-1	12,656
(This salary is predicated upon hiring a replacement for a local teacher who may be assigned to the program.)	
Teacher Aide - 5.5 hrs. per day	2,921
Supplies	2,000
Field Trips	400
Support Services	
Program Consultant - 20 days (once every other week) at $150	3,000
Counselor - one-half day per week @ $75 per half day	3,000
Evaluation Consultant	
	$32,143

TIMELINE

	ACTIVITY	DATE
1.	Committee present and reviews report with Curriculum Council and faculty of each building	March 25 - April 1
2.	Present report to Board of Education	April 8
3.	Form Screening and Identification Committee	April 9
4.	Receive Parent Nominations	April 9 - May 16
5.	Print Taylor Matrix	April 9
6.	Develop nominal scales to use with Taylor Matrix	April 9-11
7.	Community orientation	April 9 - June 30
8.	Arrange for consultant to work with committee regarding support systems	April 9
9.	Train teachers to use Renzulli Scales	April 14-18
10.	Record data for all children on Taylor Matrix	April 14 - May 2
11.	Hire teacher(s) for program	April 21
12.	Classroom teachers administer Renzulli Scales	April 21-25
13.	Teacher(s) hired released to work on inservice and program planning and implementation	May 5
14.	Develop first list of semi-finalists based solely upon Taylor Matrix	May 5 - 8
15.	Circulate semi-finalist list to faculty	May 9
16.	Special teacher nominations	May 12 - 16
17.	Develop semi-finalist list	May 19 - 20
18.	Meet with parents of semi-finalists to explain program	May 22
19.	Administer WISC-R and critical thinking skills (if one is available) tests to semi-finalists	May 23 - June 17

20.	Parents fill out Parent Observation Form	May 27 - 30
21.	Contract with consultant to work with teacher(s) of gifted	June 1
22.	Select evaluation consultant	June 6
23.	Hire part-time counselor	June 6
24.	Select finalists and alternates	June 16 - 20
25.	Teacher(s) attend Creative Problem Solving Institute	June 22 - 29
26.	Contact parents for permission to place child in program and also hold a second general parent meeting	June 23 - July 3
27.	Develop details of evaluation design	July 1 - 30
28.	Organize fall in-service course	July 1 - 30
29.	First general meeting of parents of children in the class(es)	July 7 - 11
30.	Print and distribute list of cut-off scores used at semi-finalist and finalist stages	July 7 - 11
31.	Develop with BOCES preliminary plans for county-wide 1980-81 meeting of the teachers of the gifted	July 7 - 18
32.	Transportation department schedules necessary special runs	July 7 - Aug. 15
33.	Confratute '80 at University of Connecticut	July 28 - August 8
34.	BOCES two week summer workshop for teachers of the gifted	TBA
35.	Train second or third grade teachers for two weeks in higher level thinking skills	TBA
36.	Screen all new entrants to the school system and children nominated by teachers or parents for inclusion in current class(es)	Aug. 15, 1980 - June 30, 1981
37.	Second meeting for parents of students	Sept.11

38.	On-going community orientation and program	Sept. - June
39.	Train substitute teachers	Sept. 22 - Oct. 10
40.	Monthly county-wide meeting of teachers of the gifted	Sept. - June
41.	Identification of community resource persons to work with program	Sept. Intensively Oct. - June on-going
42.	Organize spring inservice course	Oct.
43.	Teacher(s) of gifted meet with sending teacher	Oct. - May
44.	Fall inservice course for elementary teachers	Oct. - Dec.
45.	Periodic parent meetings	Oct. - June
46.	Develop series of publications and describe program	Nov. - April
47.	Classroom teachers visit gifted classes	Nov. - April
48.	Establish Cosgrove Committee on the Gifted (due date for report, Dec. 15, 1981)	Jan. 9, 1981
49.	Superintendent and Board decide about Committee's recommendations for 1981-82	Feb. 10, 1981
50.	Student Selection process for 1981-82 starts	Feb. 16, 1981
51.	Start systematic exposure of higher level thinking and of study skills to second and third graders	Feb. 16, 1981
52.	Inservice course for Cosgrove	Feb. - March
53.	Expansion of program at elementary level (if committee's recommendation is approved)	Sept. 1981
54.	Cosgrove Committee on the Gifted reports to the Superintendent	Dec. 15, 1981
55.	Activities leading to grade seven implementation in Sept. 1982	Jan. - Aug. 1982

EQUALITY IN A DEMOCRACY

"We . . . are committed to making equal the opportunity children have to gain an education. . . . This is a simple concept, but it is not a simple-minded one. Equal opportunity does not mean exactly equal treatment for each and every student, regardless of background or condition. It *does* mean guaranteeing that every young person has an equal chance to get the kind of education that will help that individual realize his or her potential.

There is among too many people in this country an unfortuanate confusion between the concept of democracy and the concept of uniformity. Treating every child exactly like every other may seem democratic - but it actually is an unegalitarian as anything could be, because it ratifies and enforces inequalities that already exist. Giving special support to the disadvantaged or the handicapped, or to the gifted, may seem biased or elitist - but it actually enhances the democratic quality of our schools, because it makes it possible for *all* children to achieve an education that equally meets their needs. There is no conflict between special programs for special need groups and our national goal of equity in the school process. The two propositions are compatible and complementary."

Mary F. Berry
Assistant Secretary for Education
May 17, 1978

APPENDIX A

PROGRAMS VISITED

Brockport Central Schools

Gates-Chili Central Schools

Greece Central Schools

Hilton Central Schools

Kendall Central Schools

Pittsford Central Schools

Rochester City School District

APPENDIX A

QUESTIONS TO BE ASKED BOTH OF THE TEACHER AND THE PROGRAM CONTACT PERSON - OBSERVER AHEAD OF TIME SHOULD DECIDE WHICH QUESTIONS HE/SHE WILL ASK OF TEACHER AND OF PROGRAM CONTACT PERSON

- How long has program been in operation?
- How do you select kids? Definition of gifted
- Numbers of children and teacher and teacher aides
- Grade levels
- Special materials different from regular classroom materials
- In-service training for regular classroom teachers
- Planning and preparation for the program
- Teacher's schedule
- Type/organization of program
  - mainstream
  - self-contained
  - bussing
- What types of problems does program have
- What types of strengths does program have
- How is progress reported to parents
- Communication with parents
- Communication with community
- Communication with teachers
- How was the teacher selected
- Evaluation tools?
- How is student's progress evaluated
- Have kids been removed from or added to the program since it started?
  - Why? How was this done?
- Curriculum design
  - Acceleration? Enrichment? Visitors? Field trips?
- To what extent does our observer see the teacher asking higher level questions?
  - Evaluate - judge/argue/justify/debate/assess
  - Synthesis - invent/predict/create/imagine/hypothesize/design
  - Analysis - Compare and contrast/classify/categorize/discriminate
- Support staff - how much help do they have from a specialist - art/music/psychologist/principal/other
- Budget - cost factors
- If you had to be a teacher of the gifted once again, what type of training/preparation would like to have had?

QUESTIONS TO ASK OF CHILDREN

- How is this different from regular classes you have been in?
- What do you like/not like about the class?
- What do you think the attitude of other kids about the program is?

FUTURE PLANS (NEXT YEAR) FOR THE PROGRAM

- What changes, of any, have been made in the printed description of the program?

APPENDIX B

NEEDS ASSESSMENT QUESTIONNAIRE

1. What characteristics do you perceive gifted children to have?

2. What provisions do you make for the gifted now?

3. What further needs to be done for the gifted child in your level?

4. Do you see other needs for the gifted in your building?

5. In developing a program, at what age/grade level should it start?

6. Do you have any special suggestions or comments for the Committee on the Gifted?

APPENDIX C

HANDICAPPED STUDENTS AND FISCAL SUPPORT FOR THEM: 1979-80

PROGRAM	NO. STUDENTS	TOTAL BUDGET	AVERAGE COST PER STUDENT
BOCES EMR and TMR	37	$ 151,272	$ 4,088
Multiple Handicapped	4	25,680	6,420
NI/ED	46	213,050	4,632
Total/Average	87	$ 390,002	$ 4,483
Private Placements 6 different institutions	11	$ 71,383	$ 6,489
GRAND TOTAL	98	$ 461,385	$ 4,708

These 98 students represent 2.3% of the total K-12 enrollment of 4,247.

APPENDIX D

RENZULLI SCALES

Directions for Administering

1. Along the top of each page list in alphabetical order, directory style (last name first), all of the students whom you teach. Scotch tape enough blank pages side by side so that the entire group (class) is on one sheet. For example:

LEARNING CHARACTERISTICS	Adams, Clayton	Evans, Mary	Heubler, John	Oppeinheimer, Ann	Reger, Robert	Zimmer, Jane
1. Vocabulary Has unusually advanced vocabulary for age or grade level; uses terms in a meaningful way; has verbal behavior characterized by "richness" of expression, elaboration, and fluency.						

2. For each characteristic that a youngster exhibits to a considerable degree, place a "X" in the box under his name. For example:

LEARNING CHARACTERISTICS	Adams, Clayton	Evans, Mary	Heubler, John	Oppeinheimer, Ann	Reger, Robert	Zimmer, Jane
1. Vocabulary Has unusually advanced vocabulary for age or grade level; uses terms in a meaningful way; has verbal behavior characterized by "richness" of expression, elaboration, and fluency.		X	X			X

RENZULLI SCALES

Directions for Scoring:

A. Add up the total number of X's a child has. This will be his score. The minimum possible score a child can have is 0; the maximum possible is 27.

B. If more than one teacher rates a child, such as in a team situation; the total score each teacher gives a child will be divided by the number of teachers who rate the child. This average score will be rounded either up or down to the nearest whole number.

C. In team situations, teachers are to rate each child by themselves. They are <u>not</u> to meet as a group, discuss each child and then record the agreed upon X's.

LEARNING CHARACTERISTICS	List Students															
1. Vocabulary Has unusually advanced vocabulary for age or grade level; uses terms in a meaningful way; has verbal behavior characterized by "richness" of expression, elaboration, and fluency.																
2. Information Possesses a large storehouse of information about a variety of topics (beyond the usual interests of youngsters his/her own age).																
3. Memory Has quick mastery and recall of factual information.																
4. Analytical Curiosity Has rapid insight into cause-effect relationships; tries to discover the how and why of things; asks many provacative questions (as distinct from information or factual questions); wants to know what makes things (or people) "tick."																
5. Abstract Reasoning Has a ready grasp of underlying principles and can quickly make valid generalizations about events, people, or things; looks for similarities and differences in events, people and things.																
6. Perceptiveness Is a keen and alert observer; usually "sees more" or "gets more" out of a story, film, etc. than others.																

LEARNING CHARACTERISTICS	List Students
7. Reading Maturity Reads a great deal on his own; usually prefers adult level books; does not avoid difficult material; may show a preference for biography, autobiography, encyclopedias, and atlases.	
8. Analytical Reasoning (Logical Thinking) Tries to understand complicated material by separating it into its respective parts; reasons things out for himself; sees logical and common sense answers.	

MOTIVATIONAL CHARACTERISTICS	List Students
1. Task Commitment Becomes absorbed and truly involved in certain topics or problems; is persistent in seeking task completion. (It is sometimes difficult to get him to move on to another topic.)	
2. Reaction to Routine Is easily bored with routine tasks.	
3. Self-Motivation Needs little external motivation to follow through in work that initially excites him.	
4. Perfectionism Strives toward perfection; is self critical; is not easily satisfied with his own speed or product.	
5. Self-Direction Prefers to work independently; requires little direction from teachers.	
6. Maturity of Interests Is interested in many "adult" problems such as religion, politics, sex, race-more than usual for age level.	
7. Self-Confidence Often is self assertive (sometimes even aggressive); stubborn in his beliefs.	
8. Intellectual Structure Likes to organize and bring structure to things, people, and situations.	
9. Values Is quite concerned wirh right and wrong, good and bad; often evaluates and passes judgment on events, people, and things.	

CREATIVITY CHARACTERISTICS	List Students
1. General Curiosity Displays a great deal of curiosity about many things; is constantly asking questions about anything and everything.	
2. Divergent Thinking Generates a large number of ideas or solutions to problems and questions; often offers unusual ("way out"), unique, clever, responses.	
3. Courage of Opinions Is uninhibited in expressions of opinion; is sometimes radical and spirited in disagreement; is tenacious.	
4. Intellectual Adventurousness Is a high risk taker; is adventurous and speculative.	
5. Intellectual Playfulness Displays a good deal of intellectual playfulness; fantasizes; imagines ("I wonder what would happen if . . ."); manipulates ideas (i.e. changes, elaborates upon them); is often concerned with adapting, improving and modifying institutions, objects, and systems.	
6. Humor Displays a keen sense of humor and sees humor in situations that may not appear to be humerous to others.	
7. Resistance to Role Sterotyping Is unusually aware of his impulses and more open to the irrational in himself (freer expression of feminine interest; for boys, greater than usual amount of independence for girls); shows emotional sensitivity.	

CREATIVITY CHARACTERISTICS	List Students
8. Aesthetic Sensitivity Is sensitive to beauty; attends to aesthetic characteristics of things.	
9. Non-Conformity Is nonconforming; accepts disorder; is not interested in details; is individualistic; does not fear being different.	
10. Critical Questioning (Skepticism) Criticizes constructively; is unwilling to accept authoritarian pronouncements without critical examination.	

APPENDIX E

Questions to Identify the Gifted

by John C. Gowan

Directions: Think of all of your students. After each category write the name of the child who best fits the description. If you can not think of anyone, leave the item blank. If you think two children equally qualify for a category, write both of their names in the space provided. Do not take too long to complete this questionnaire. Record those students who immediately come to mind as you consider each question.

1. Who is the:

   a. Best student? _____

   b. Child with the biggest vocabulary? _____

   c. Most creative and original? _____

   d. Child with the most leadership? _____

   e. Most scientifically oriented child? _____

   f. Child who does the best critical thinking? _____

   g. Able child who is the biggest nuisance? _____

   h. Best motivated child? _____

   i. Child the other children like best? _____

   j. Child who is most ahead on grade placement? _____

   k. Child whose parents are most concerned about increasing the enrichment of his educational progress? _____

2. Which children have:

   a. Held leadership positions? _____

   b. Achieved outstandingly in any special skill (such as arithmetic)? _____

   c. Are examples of reading difficulties but believed bright? _____

   d. Are believed bright but maybe emotionally disturbed? _____

APPENDIX F

TAYLOR MATRIX

Directions:

1. For each set of scores (i.e. Otis Lennon, MAT, etc.):

   a. Determine the range of scores

   b. Compute the median

   c. Determine the range of scores between the median and the highest score; then divide by 6; round to the nearest whole number.

   d. This process will create seven score intervals. Assign a 1 to the lowest interval, 2 to the next interval, etc.

2. For example, a group of 309 students on a particular test had scores ranging from 41 through 94. The median was 60.

$$\begin{array}{r} 94 \\ -\ 60 \\ \hline 34 \end{array}$$

$34 \div 6 = 5.6$, round off to 6

Interval	Assigned Score
41-60	1
61-66	2
67-72	3
73-78	4
79-84	5
85-90	6
91-94	7

3. Compute for each building the Intervals and Assigned Scores for each of the following:

Test	Score to be Used
Otis Lennon	I Q
Total MAT Reading	Standard Score
Total MAT Math	Standard Score
Renzulli Scales	Total Score
WISC-R	Total Score
Parent Observation	Total Score

4. After step three has been completed, ascertain the Assigned Score for each instrument and enter it on the Matrix.

5. Note: If both a group Otis Lennon score and an individual score are available for a child enter only the group test score. Record the individual score in the column for "Thinking Skills Test" and indicate the name of the test taken.

6. Compute the Sub-Total by adding the following Assigned Scores:

   Otis Lennon

   Total MAT Reading

   Total MAT Math

   Renzulli Scales

7. Compute the Total Score by adding the following Assigned Scores to the Sub-Total:

   WISC-R

   Parent Observation

TAYLOR IDENTIFICATION MATRIX

SCHOOL: GRADE: DATE COMPLETED:

Student's Name (Directory Style)	Otis-Lennon I Q	Total MAT Reading	Total MAT Math	Renzulli Scales Score	Sub Total	WISC-R	Thinking Skills Test (to be determined)	Parent Observation Score	Total
			77	91					

APPENDIX G

PARENT OBSERVATION FORM

Directions: Indicate the extent to which your child exhibits the characteristics listed below.

	To a Considerable Degree	Somewhat	Seldom or Never
1. Vocabulary Has unusually advanced vocabulary for age or grade level; uses terms in a meaningful way; has verbal behavior characterized by "richness" of expression, elaboration, and fluency.			
2. Information Possesses a large storehouse of information about a variety of topics (beyond the usual interests of youngsters his/her own age).			
3. Memory Has quick mastery and recall of factual information.			
4. Analytical Curiosity Has rapid insight into cause-effect relationships; tries to discover the how and why of things; asks many provocative questions (as distinct from informational or factual questions); wants to know what makes things (or people) "tick."			
5. Abstract Reasoning Has a ready grasp of underlying principles and can quickly make valid generalizations about events, people, or things; looks for similarities and differences in events, people, and things.			
6. Perceptiveness Is a keen and alert observer; usually "sees more" or "gets more" out of a story, film, etc. than others.			

	To a Considerable Degree	Somewhat	Seldom or Never
7. Reading Maturity Reads a great deal on hiw own; usually prefers adult level books; does not avoid difficult material; may show a preference for biography, autobiography, encyclopedias, and atlases.			
8. Analytical Reasoning (Logical Thinking) Tries to understand complicated material by separating it into its respective parts; reasons things out for himself; sees logical and common sense answers.			
9. Task Commitment Becomes absorbed and truly involved in certain topics or problems; is persistent in seeking task completion. (It is sometimes difficult to get him to move on to another topic.)			
10. Reaction to Routine Is easily bored with routine tasks.			
11. Self-Motivation Needs little external motivation to follow through in work that initially excites him.			
12. Perfectionism Strives toward perfection; is self critical; is not easily satisfied with his own speed or product.			
13. Self-Direction Prefers to work independently; requires little direction from parents.			
14. Maturity of Interests Is interested in many "adult" problems such as religion, politics, sex, race - more than usual for age level.			
15. Self-Confidence Often is self assertive (sometimes even aggressive); stubborn in his beliefs.			
16. Intellectual Structure Likes to organize and bring structure to things, people, and situations.			

	To a Considerable Degree	Somewhat	Seldom or Never
17. Values Is quite concerned with right and wrong, good and bad; often evaluates and passes judgment on events; people and things.			
18. General Curiosity Displays a great deal of curiosity about many things; is constantly asking questions about anything and everything.			
19. Divergent Thinking Generates a large number of ideas or solutions to problems and questions; often offers unusual("way out"), unique, clever, responses.			
20. Courage of Opinions Is uninhibited in expressions of opinion; is sometimes radical and spirited in disagreement; is tenacious.			
21. Intellectual Adventurousness Is a high risk taker; is adventurous and speculative.			
22. Intellectual Playfulness Displays a good deal of intellectual playfulness; fantasizes; imagines ("I wonder what would happen if.."); manipulates ideas (i.e. changes, elaborates upon them); is often concerned with adapting, improving and modifying institutions, objects and systems.			
23. Humor Displays a keen sense of humor and sees humor in situations that may not appear to be humorous to others.			
24. Resistance to Role Stereotyping Is unusually aware of his impulses and more open to the irrational in himself (freer expression of feminine interest; for boys, greater than usual amount of independence for girls); shows emotional sensitivity.			

	To a Considerable Degree	Somewhat	Seldom or Never
25. Aesthetic Sensitivity Is sensitive to beauty; attends to aesthetic characteristics of things.			
26. Non-Conformity Is nonconforming; accepts disorder; is not interested in details; is individualistic; does not fear being different.			
27. Critical Questioning (Skepticism) Criticizes constructively; is unwilling to accept authoritarian pronouncements without critical examination.			

PARENT OBSERVATION FORM: SCORING INSTRUCTIONS

Determine the total number of times the category "To a Considerable Degree" was checked.

APPENDIX H

NUMBER OF STUDENTS WHO WOULD BE IN PROGRAM AT VARIOUS CUT-OFF LEVELS

1980-81	PROJECTED ENROLLMENT	7%	6%	5%	4%	3%
Grade 3	245	17	15	12	10	7
4	299	21	18	15	12	9
5	347	25	21	17	14	10
6	353	25	21	18	14	10
1981-82						
Grade 3	238	17	14	12	10	7
4	243	17	15	12	10	7
5	306	21	18	15	12	9
6	336	24	20	17	13	10
1982-83						
Grade 3	215	15	13	11	9	6
4	236	17	14	12	9	7
5	249	17	15	12	10	7
6	296	21	18	15	12	9
1983-84						
Grade 3	207	15	12	10	8	6
4	213	15	13	11	9	6
5	241	17	14	12	10	7
6	241	17	14	12	10	7
1984-85						
Grade 3	198	14	12	10	8	6
4	205	14	12	10	8	6
5	218	15	13	11	9	7
6	233	16	14	12	9	7

APPENDIX I

CHARACTERISTICS OF THE GIFTED

Throughout the literature on the gifted and in many formal proposals prepared by school districts, a common element is the listing of various characteristics of gifted children. These characteristics need to be considered in order to understand gifted children, to design a program to meet their needs and to teach them.

Usually these lists appear to be all inclusive and of a "motherhood" nature. However, when the lists appear in the literature they are accompanied by a statement which bases them upon research findings. Thus, they are discrete items descriptive of gifted children as a group which need to be incorporated into the thinking and work of program planners and teachers of the gifted.

APPENDIX I

CHARACTERISTICS OF THE GIFTED	IMPLICATIONS FOR EDUCATION
Inquisitive, curious	Wants to learn by active exploration, questioning, investigation
Interested in many things and finds independent pursuit of interests rewarding	Is motivated to achieve in school if own interests are involved
Desires intensely to know and understand	Wants to try, to succeed, to master, not lazy
Perfectionist, often persevering with high concentration when motivated to reach a goal	Vulnerable to pressures of external evaluation as well as to internal standards of perfection, vulnerable to unrealistic expectations and highly sensitive to "failure", resists interruption to keep a rigid time schedule - wants to continue until the task is perfectly completed
Highly sensitive	Quick to perceive "failure" and "rejection"
Nonconformist, independent thinker	Resents the constraining structure of a traditional classroom, excessive rules and regulations, and pressure for conformity at the expense of expressing individuality
Has drive to be creative, inventive, expressive, discovering	Repelled by rigid structure, rote work, textbook-centered curriculum, excessive group instruction and teacher control
Exceptional capacity for analytical and critical thinking advanced problem solving and perceiving relationships among ideas and events	Desires relevant curriculum, being involved in dynamic learning, sees little use in skill work, tends to be excessively critical of self and others
Self-sufficient, takes initiative, resourceful	Wants opportunity for self-direction, decision making, and developing own interests and plans
Has a distinctive learning style	Teaching methods must be based on a child's learning style in order to motivate and to fulfill learning needs

Joanne Whitmore
Peabody College for Teachers

TRAITS OF THE GIFTED AND TALENTED CHILD

LEARNS EASILY

IS ORIGINAL, IMAGINATIVE, CREATIVE

IS WIDELY INFORMED

IS PERSISTENT, RESOURCEFUL, SELF-DIRECTED

HAS COMMON SENSE - WITH UNCOMMON UNDERSTANDING

IS INQUISITIVE, SKEPTICAL

IS INFORMED IN UNUSUAL AREAS

IS ARTISTIC TO A HIGH DEGREE

HAS OUTSTANDING VOCABULARY, IS VERBALLY FLUENT

MAY BE MUSICAL, OUTSTANDING IN PERFORMANCE

IS AN INDEPENDENT WORKER, SHOWS UNUSUAL INITIATIVE

SHOWS GOOD JUDGMENT IS LOGICAL

IS FLEXIBLE, OPEN

IS VERSATILE, HAS MANY INTERESTS

SHOWS UNUSUAL INSIGHTS

SHOWS HIGH LEVEL OF SENTIVITY, EMPATHY

HAS EXCELLENT SENSE OF HUMOR

MAY HAVE UNUSUAL MECHANICAL APTITUDE

OFTEN SHOWS LEADERSHIP

CAN BE THE BIGGEST NUISANCE

HAS PARENTS WHO ARE MOST CONCERNED ABOUT INCREASING EDUCATIONAL ENRICHMENT

IS THE CHILD THE OTHER CHILDREN LIKE BEST

Developed by the Ventura, Calif., Public Schools

MINIMAL CONDITIONS FOR MEETING THE BASIC NEEDS OF THE GIFTED

I. PSYCHOLOGICAL

General sense of success in a challenging intellectual environment

Minimal pressures - e.g., time, grades, social

Flexibility in schedule and experiences -

minimal structure

alternatives

freedom to choose, decide

Opportunity to develop capacity for self-direction

Realistic teacher expectations and assistance establishing realistic self-expectations

Guidance in learning to cope with traits of perfectionism and supersensitivity - tendencies to feel inadequate and to perceive social rejection or alienation

Competition and cooperation appropriately balanced among classmates

Teacher as a model of a creative, intelligent, sensitive person who is socially skillful and actively involved in continuous learning and self-development

Student-centered classroom in which students actively participate in planning and evaluating

II. SOCIAL

General sense of acceptance and belonging in the classroom plus at least five gifted peers with whom there can be frequent social and academic interaction.

Climate of genuine respect, empathy, and affirmation of the worth of individuals; communication that learning is valued and intelligence is respected.

Honest, constructive feedback from teacher and peers with sensitively helps the child understand social expectations and the effects of his behavior.

MINIMAL CONDITIONS FOR MEETING THE BASIC NEEDS OF THE GIFTED

II. SOCIAL (continued)

Intentional development of social skills and leadership potential:

- partner and team work
- class or group planning and evaluating
- class discussions which increase social awareness and interpersonal skills

Open communication in which a student can discuss ideas, raise questions or defend a position without ridicule by peers or teacher intervention because of irritation or resentment.

III. INTELLECTUAL

Individualized instruction in the basic skills, curriculum and instruction adapted to child's learning style - allowing self-pacing and acceleration, and using a wide variety of methods and materials.

Encouragement to be creative and self-expressive through the arts.

Curriculum that is intellectually challenging, relevant to the world the child is exploring, useful and meaningful to the child, related to his questions or interests.

Exposure to large bodies of knowledge in the arts and sciences and to models of gifted persons in those fields.

Minimal rote memorization and practice exercises, maximum opportunity for problem solving and development of research skills - not a textbook-centered approach.

Integrated, interdisciplinary curriculum.

Opportunity to pursue and share interests and special abilities.

Opportunity to use what is learned tools in rewarding communication, discovery, or problem solving

Frequent opportunity for "idea play," debate and interaction with the ideas of others.

APPENDIX J

Area Service Center for Educators of Gifted Children
Governors State University Park Forest South, Illinois 60466

STATING BEHAVIORAL OBJECTIVES FOR CLASSROOM INSTRUCTION

TABLE I. Major Catagories in the Cognitive Domain of the Taxonomy of Educational Objectives (Bloom, 1956)

Descriptions of the Major Categories in the Cognitive Domain
1. KNOWLEDGE. Knowledge is defined as the remembering of previously learned material. This may involve the recall of a wide range of material, from specific facts to complete theories, but all that is required in the bringing to mind of the appropriate information. Knowledge represents the lowest level of learning outcomes in the cognitive domain.
2. COMPREHENSION. Comprehension is defined as the ability to grasp the meaning of material. This may be shown by translating material from one form to another (words to numbers), by interpreting material (explaining or summarizing), and by estimating future trends (predicting consequences or effects). These learning outcomes go one step beyond the simple remembering of material, and represent the lowest level of understanding.
3. APPLICATION. Application refers to the ability to use learned material in new and concrete situations. This may include the application of such things as rules, methods, concepts, principles, laws, and theories. Learning outcomes in this area require a higher level of understanding than those under comprehension.
4. ANALYSIS. Analysis refers to the ability to break down material into its component parts so that its organizational structure may be understood. This may include the identification of the parts, analysis of the relationships between parts, and recognition of the organizational principles involved. Learning outcomes here represent a higher intellectual level than comprehension and application because they require an understanding of both the content and the structural form of the material.
5. SYNTHESIS. Synthesis refers to the ability to put parts together to form a new whole. This may involve the production of a unique communication (theme or speech) a plan of operations (research proposal) or set of abstract relations (scheme for classifying information). Learning outcomes in this area stress creative behaviors, with major emphasis on the formulation of new patterns or structures.
6. EVALUATION. Evaluation is concerned with the ability to judge the value of material (statement, novel, poem, research report) for a given purpose. The judgments are to be based on definite criteria. These may be internal (organization) or external criteria (relevant to the purpose) and the student may determine the criteria or be given them. Learning outcomes in this area are highest in the cognitive hierarchy because they contain elements of all of the other categories, plus conscious value judgements based on clearly defined criteria.

TABLE II. Examples of General Instructional Objectives and Behavioral Terms for the Cognitive Domain of the Taxonomy

Illustrative General Instructional Objectives	Illustrative Behavioral Terms for Stating Specific Learning Outcomes
Knows common terms Knows specific facts Knows methods and procedures Knows basic concepts Knows principles	Defines, describes, identifies, labels, lists, matches, names, outlines, reproduces, selects, states.
Understands facts and principles Interprets verbal material Interprets charts and graphs Translates verbal material to mathematical formulas Estimates future consequences implied in data Justifies methods and procedures	Converts, defends, distinguishes, estimates, explains, extends, generalizes, gives examples, infers, paraphrases, predicts, rewrites, summarizes
Applies concepts and principles to new situations Applies laws and theories to practical situations Solves mathematical problems Constructs charts and graphs Demonstrates correct usage of a method or procedure	Changes, computes, demonstrates, discovers, manipulates, modifies, operates, predicts, prepares, produces, relates, shows, solves, uses.
Recognizes unstated assumptions Recognizes logical fallacies in reasoning Distinguishes between facts and inferences Evaluates the relevancy of data Analyses the organizational structure of a work (art, music, writing)	Breaks down, diagrams, differentiates, discriminates, distinguishes, identifies, illustrates, infers, outlines, points out, relates, selects, separates, subdivides.
Writes a well organized theme Gives a well organized speech Writes a creative short story (or poem, or music) Proposes a plan for an experiment Integrates learning from different areas into a plan for solving a problem Formulates a new scheme for classifying objects (or events, or ideas)	Categorizes, combines, compiles, composes, creates, devises, designs, explains, generates, modifies, organizes, plans, rearranges, reconstructs, relates, reorganizes, revises, rewrites, summarizes, tells, writes.
Judges the logical consistency of written material Judges the adequacy with which conclusions are supported by data Judges the value of a work (art, music, writing) by use of internal criteria Judges the value of a work (art, music, writing) by use of external standards of excellence	Appraises, compares, concludes, contrasts, criticizes, describes, discriminates, explains, justifies, interprets, relates, summarizes, supports.

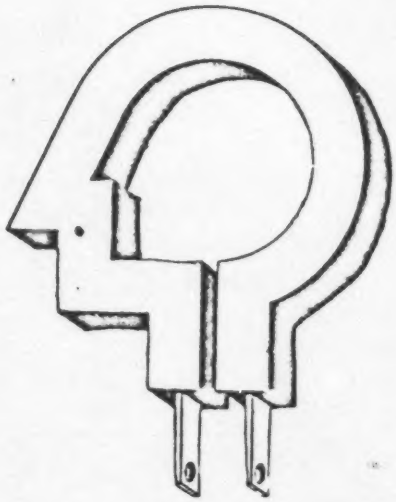
TABLE III. Major Categories in the Affective Domain of the Taxonomy of Educational Objectives (Krathwohl, 1964)

Descriptions of the Major Categories in the Affective Domain
1. RECEIVING. Receiving refers to the student's willingness to attend to particular phenomena or stimuli (classroom activities, textbook, music, etc.). From a teaching standpoint, it is concerned with getting, holding, and directing the student's attention. Learning outcomes in this area range from the simple awareness that a thing exists to selective attention on the part of the learner. Receiving represents the lowest level of learning outcomes in the affective domain.
2. RESPONDING. Responding refers to active participation on the part of the student. At this level he not only attends to a particular phenomenon but also reacts to it in some way. Learning outcomes in this area may emphasize acquiescence in responding (reads assigned material), willingness to respond (voluntarily reads beyond assignment), or satisfaction in responding (reads for pleasure or enjoyment). The higher levels of this category include those instructional objectives that are commonly classified under "interests" that is, those that stress the seeking out and enjoyment of particular activities.
3. VALUING. Valuing is concerned with the worth or value a student attaches to a particular object, phenomenon, or behavior. This ranges in degree from the more simple acceptance of a value (desires to improve group skills) to the more complex level of commitment (assumes responsibility for the effective functioning of the group). Valuing is based on the internalization of a set of specified values, but clues to these values are expressed in the student's overt behavior. Learning outcomes in this area are concerned with behavior that is consistent and stable enough to make the value clearly identifiable. Instructional objectives that are commonly classified under "attitudes" and "appreciation" would fall into this category.
4. ORGANIZATION. Organization is concerned with bringing together different values, resolving conflicts between them, and beginning the building of an internally consistent value system. Thus the emphasis is on comparing, relating, and synthesizing values. Learning outcomes may be concerned with the conceptualization of a value (recognizes the responsibility of each individual for improving human relations) or with the organization of a value system (develops a vocational plan that satisfies his need for development of a philosophy of life) would fall into this category.
5. CHARACTERIZATION BY A VALUE OR VALUE COMPLEX. At this level of the affective domain, the individual has a value system that has controlled his behavior for a sufficiently long time for him to have developed a characteristic "life style." Thus the behavior is pervasive, consistent, and predictable. Learning outcomes at this level cover a broad range of activities, but the major emphasis is on the fact that the behavior is typical or characteristic of the student. Instructional objectives that are concerned with the student's general patterns of adjustment (personal, social, emotional) would be appropriate here.

TABLE IV. Examples of General Instructional Objectives and Behavioral for the Affective Domain of the Taxonomy

Illustrative General Instructional Objectives	Illustrative Behavioral Terms for Stating Specific Learning Outcomes
Listens attentively Shows awareness of the importance of learning Shows sensitivity to human needs and social problems Accepts differences of race and culture Attends closely to the classroom activities .	Asks, chooses, describes, follows, gives, holds, identifies, locates, names, points to, selects, sits erect, relies, uses
Completes assigned homework Obeys school rules Participates in class discussion Completes laboratory work Volunteers for special tasks Shows interest in subject Enjoys helping others	Answers, assists, compiles, conforms, discusses, greets, helps, labels, performs, practices, presents, reads, recites, reports, selects, tells, writes
Demonstrates belief in the democratic process Appreciates good literature (art or music) Appreciates the role of science (or other subjects) in everyday life Shows concern for the welfare of others Demonstrates problem-solving attitude Demonstrates commitment to social improvement	Completes, describes, differentiates, explains, follows, forms, initiates, invites, joins, justifies, proposes, reads, reports, selects, shares, studies, works
Recognizes the need for balance between freedom and responsibility in a democracy Recognizes the role of systematic planning in solving problems Accepts responsibility for his own behavior Understands and accepts his own strengths and limitations Formulates a life plan in harmony with his abilities, interests, and beliefs	Adheres, alters, arranges, combines, compares, completes, defends, explains, generalizes, identifies, integrates, modifies, orders, organizes, prepares, relates, synthesizes
Displays safety consciousness Demonstrates self-reliance in working independently Practices cooperation in group activities Uses objective approach in problem solving Demonstrates industry, punctuality and self-discipline Maintains good health habits	Acts, discriminates, displays, influences, listens, modifies, performs, practices, proposes, qualifies, questions, revises, serves, solves, uses, verifies

APPENDIX K



CONFRATUTE '80

UNIVERSITY OF CONNECTICUT

July 28 - August 8, 1980

* * *

Preliminary Announcement

The University of Connecticut and the Connecticut State Department of Education are preparing the third annual Summer "Confratute" on the Gifted and Talented. The "Confratute" brings together the best aspects of a *conference* – guest lectures by outstanding leaders in the area of gifted child education; the *institute* of this program consists of strands (mini-courses) dealing with identification, programming, evaluation and other aspects of education for the gifted and talented. Three graduate credits can be earned for this unique two week experience.

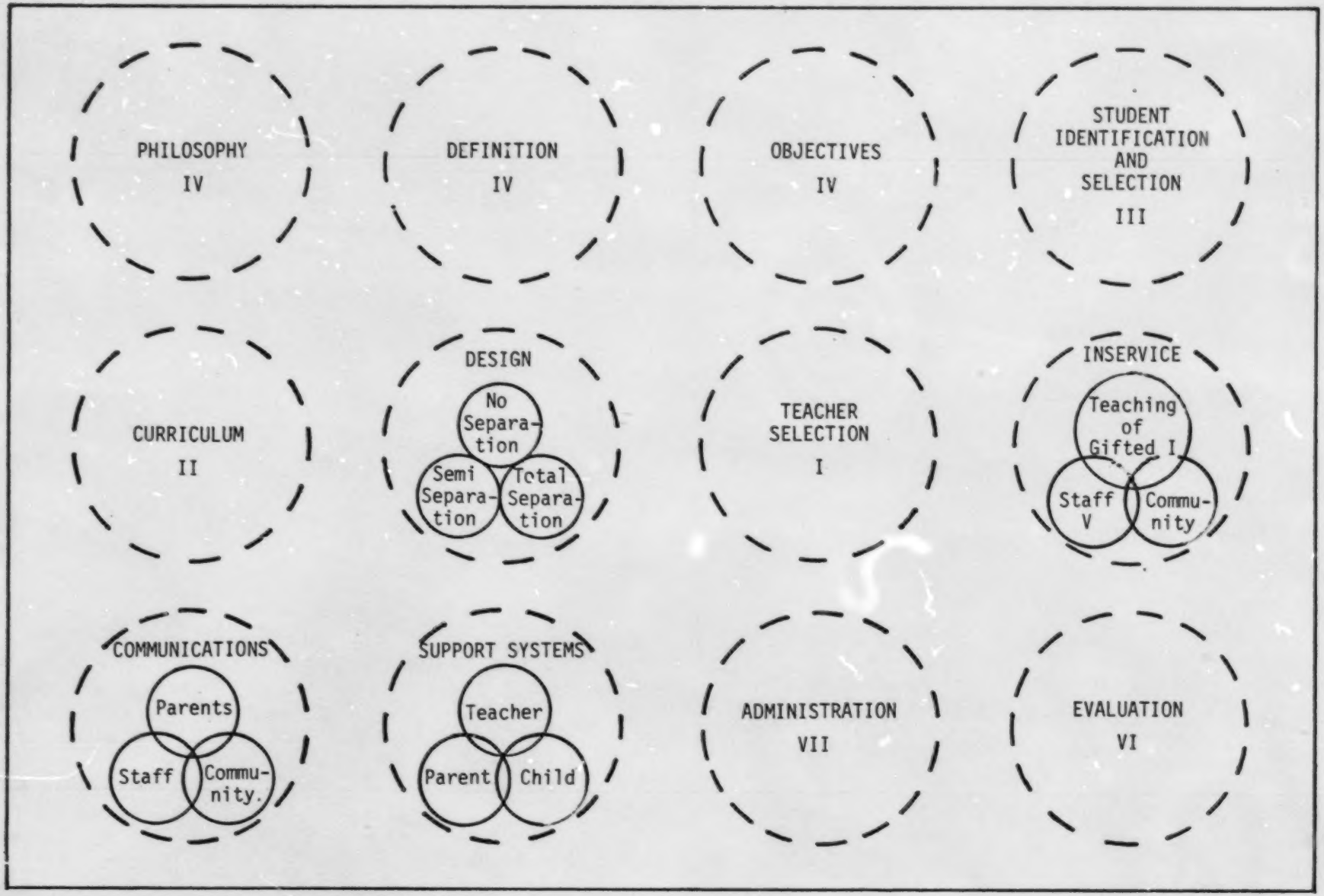
The institute portion consists of several specific strands that meet on a daily basis to provide continuous and systematic coverage of topics such as the following:

Programming for elementary and secondary gifted students, both in resource rooms and within classroom settings
Creative problem solving
Administration of gifted programs
Proposal writing and evaluation
In-service procedures for teacher trainers
Curriculum development
Visual and performing arts
The Enrichment Triad Model
Introduction to the field of gifted and talented
Writing for educational publication

These and other strands will be arranged to accommodate those who are new to the area of gifted child education as well as those who already have extensive knowledge in this area of education. A special Advanced Strand will be conducted for persons who have attended Confratute '78 or '79.

In addition to the guest lectures and strands, both a well-stocked materials center and an on-going film festival will be available. Field trips to various centers where gifted programs are in operation (Talcott Mountain Science Center; Center for Creative Youth) will be arranged as well as optional weekend trips to local areas of interest (Sturbridge Village; Boston; Mystic Seaport).

Components of a Program for the Gifted



Roman Numerals designate key features, in rank order, for programs for the gifted as determined through a study done by Joseph S. Renzulli.

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6. U. S. Commissioner of Education, Education of the Gifted and Talented: Report to the Congress of the United States (Washington: U.S. Government Printing Office, 1972), p. 109.

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13. Policy 215 P, pp. 1 - 2.

14. Astill, et. al., Notes taken . . . , p. 1.

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20. Gowan, "Identification . . . ," p. 281

21. U. S. Commissioner of Education, Education of the . . ., p. 2.

22. Educating the Gifted .... , p. 4.

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